REPORT RESUMES

ED 018 529 UD 006 234

EDUCATION ACT PROJECT EVALUATION. PART II.

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PUB DATE FEB 68
EDRS PRICE MF-$0.50 HC-$4.36 107P.

DESCRIPTORS- *COMPENSATORY EDUCATION PROGRAMS, *FEDERAL PROGRAMS, *DISADVANTAGED YOUTH, *PROGRAM EVALUATION, PUBLIC SCHOOLS, ELEMENTARY SCHOOL STUDENTS, SECONDARY SCHOOL STUDENTS, ENRICHMENT PROGRAMS, SPECIAL SERVICES, REMEDIAL INSTRUCTION, PROGRAM ADMINISTRATION, TEST RESULTS, ACADEMIC ACHIEVEMENT, STATISTICAL DATA, SELF CONCEPT, STUDENT OPINION, TEACHER EVALUATION, RESOURCE CENTERS, SUMMER PROGRAMS, CINCINNATI, OHIO, ESEA TITLE 1, STANFORD ACHIEVEMENT TEST

THIS REPORT DESCRIBES AND EVALUATES TWO COMPENSATORY EDUCATION PROJECTS IN CINCINNATI, OHIO, FUNDED UNDER TITLE I OF THE ELEMENTARY AND SECONDARY EDUCATION ACT. IN THE SECONDARY SCHOOL REMEDIAL AND ENRICHMENT PROJECT, SPECIALLY EMPLOYED PERSONNEL USED EQUIPMENT AND SUPPLIES PURCHASED WITH TITLE I FUNDS TO INCREASE THE ACADEMIC ACHIEVEMENT OF DISADVANTAGED SECONDARY SCHOOL STUDENTS. EVALUATIVE DATA INDICATED THAT THE PROJECT WAS NOT SUCCESSFUL IN ATTAINING SPECIFIED OBJECTIVES. HOWEVER, SEVERAL SPECIFIC INSTRUCTIONAL ACTIVITIES APPEARED EFFECTIVE, SUCH AS REMEDIAL ENGLISH INSTRUCTION, HEALTH AND GUIDANCE SERVICES, AND SUMMER READING AND MATHEMATICS REMEDIATION. THE ELEMENTARY SCHOOL REMEDIATION AND ENRICHMENT ACTIVITIES INCLUDED REMEDIAL INSTRUCTION, ENRICHMENT LEARNING RESOURCE CENTERS, PARENT INVOLVEMENT, AND A SUMMER LEARNING CAMP. MEASUREMENT OF FUNCTIONAL OBJECTIVES REVEALED ONLY OCCASIONAL POSITIVE RESULTS. IN THE EVALUATION OF SPECIAL INSTRUCTIONAL ACTIVITIES, ONLY THE LANGUAGE ARTS PROGRAM APPEARED EFFECTIVE. SATURDAY ENRICHMENT CLASSES AND THE SUMMER LEARNING CAMP WERE WELL-RECEIVED, AND THE RESOURCE CENTERS WERE OPERATING EFFICIENTLY. THIS ARTICLE IS PUBLISHED IN THE "JOURNAL OF INSTRUCTIONAL RESEARCH AND PROGRAM DEVELOPMENT," VOLUME 3, NUMBER 3, FEBRUARY 1968. (LB)

ED018529

JOURNAL OF INSTRUCTIONAL RESEARCH AND PROGRAM DEVELOPMENT

EDUCATION ACT PROJECT EVALUATION
PART II

VOLUME 3, NUMBER 3
February, 1968

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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UD 006 234

DEPARTMENT OF INSTRUCTION
Cincinnati Public Schools

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PREFACE

This issue of the Journal is the third and final issue of Volume 3 to deal exclusively with evaluation of the Education Act Title I program in the Cincinnati Public Schools. Two projects are reported: Elementary School Remediation and Enrichment, Miss Lorena O'Donnell, project coordinator; and Secondary School Remediation and Enrichment, Miss Martha Leeds, project coordinator.

Each report is essentially in two parts. The first part describes the project in terms of its services and narrates the ongoing activities with emphasis on processes. This part will be of interest to other project coordinators and anyone else interested in project operation--successes and pitfalls.

The second part presents the evaluative data as they bear on specific objectives. Analysis and interpretation of the evidence are brought to bear on the objectives set forth in the projects.

The narrative portions of each report were written by the project coordinators while the evaluative sections were prepared by Dr. Joseph L. Felix, Associate in Program Development.

James N. Jacobs
Editor

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CHAPTER 1

SECONDARY SCHOOL REMEDIATION AND ENRICHMENT

Abstract

In this project a variety of specially employed personnel used equipment and supplies purchased with Title I funds in working with educationally disadvantaged pupils. The principal emphasis was on increasing the academic achievement of the most seriously disadvantaged secondary pupils in primary target schools. The evaluation revealed a lack of evidence of project success in attaining specified objectives. Nevertheless, several specific instructional activities appeared effective, as did the diversified summer component. Remedial English instruction had a significant positive relationship to language achievement; health services, to school attendance and arithmetic achievement; guidance services, to punctual attendance; and summer reading and mathematics remediation, to achievement in these areas.

SECONDARY SCHOOL REMEDIATION AND ENRICHMENT

Introduction

Origin

ESEA remediation and enrichment services were introduced to the Cincinnati secondary schools through a 1965-66 project that focused on the attendance area of one senior high school. This school, as well as the neighboring three junior high schools and three non-public schools with seventh and eighth grades, had been designated as primary targets. The pupils attending these schools were considered the most disadvantaged and consequently in greatest need of services supplied by the project.

Impediments to learning that derive from disadvantaged backgrounds tend to become more severe as the pupil advances in years. In high school years, as pupils pass the age limit of compulsory school attendance, the lack of success and interest in school often leads to terminating education. In an effort to combat this drop-out problems, special remedial instruction was designed to offset learning handicaps, and enrichment experiences were provided to bring the level of cultural background closer to that of average suburban pupils.

First Year's History

In its first months of operation, the project focused on raising achievement level, improving school attendance, decreasing drop-outs, increasing motivation, and improving self-image. Primary among these objectives was higher academic achievement. Professional literature abounds with evidence that disadvantaged pupils commonly achieve at a lower level than the general population. If, as is commonly believed, human intelligence is an emerging phenomenon, subject to experiential influences, there is a reasonable hope that remediation and enrichment services might eventually raised the achievement level of disadvantaged pupils to that of the general population.

If such growth is to take place, however, other kinds of improved performance are essential. For example, the pupil must attend school regularly in order to derive the greatest possible benefit from the program. Absence rates in disadvantaged areas are known to be higher than those of other districts. Neutralizing this difference was an important goal.

Similarly the project aimed at reducing the drop-out rate in the target schools. Keeping pupils in school until they complete a level of education that suits their abilities and expectations is essential to any program of educational improvement. The numerous studies of drop-outs that have been done in the past few years have described traits of students who leave school early. Many of these traits are common among pupils of disadvantaged areas.

If pupils are to attend more regularly and stay in school longer, intensive efforts must be made to increase their motivation. Such motivation is imperative if academic achievement level is to be raised. To build in project pupils a more intense desire for educational development than most of them saw in their own parents was, therefore, another important project goal.

The importance of raising a pupil's self-image in order to properly motivate him and help him reach his maximum potential has been pointed out by many authorities. The self-image of disadvantaged pupils is generally regarded as lower than that of the average pupil, although local evaluation in the first project year did not confirm this view. The project as originally designed, then, intended to improve this self-image and thereby make possible the other gains that were viewed as project objectives.

Modifications

The project was somewhat modified in the second year of operation. Rather than conducting a separate project to extend the remediation and enrichment services through the summer, the summer program was structured as one component of the total project.

Also efforts toward the education of parents, so that children might be better encouraged to learn, were built into this project rather than constituting a separate project as in the first year. Finally, the schools served by this project increased in number to include the secondary target schools, although very limited services could be provided for these additional schools. On the other hand, there was a sharper focus of services in the second year on those pupils within the primary target schools who were most in need of remediation.

Project Narrative

Objectives

The objectives of the Secondary Remediation and Enrichment project were:

1. To raise the level of pupil achievement in the areas of English, language arts, mathematics, science and social studies.
2. To increase attendance and decrease drop-out rate.
3. To improve pupil motivation through changing attitudes toward.
    a. school and education
    b. occupational aspirations
    c. expectancy of success in school
4. To improve the self-image of pupils.

Instructional and Service Activities

The following instructional and service activities were provided as part of this project:

General cultural enrichment

English language arts instruction

Mathematics instruction

Science instruction

Social studies instruction

Teacher aides and other sub-professional help

Food services

Clothing

Waiver of fees for supplies

Attendance services

Guidance and counseling

Service to parents

Components

The components of the project are as follows:

1. Regular school program
2. Summer program
3. Parent education

Co-ordinator's Log

Scope of Project. The Secondary School Remediation and Enrichment project for 1966-67 was designed to provide concentrated service to those pupils with severe learning difficulties in the attendance areas of Bloom, Cutter, Porter Junior High Schools, and Taft Senior High School. Limited service was also given in the Hughes and Withrow Senior High School attendance areas and in the Ach, Heinold, Hughes and Sawyer Junior High School attendance areas.

Personnel. To implement the project, personnel were added to the staffs of the schools served. Six administrative aides carried out the administration of the project in the four attendance areas offering concentrated services. They were responsible for such things as ordering and distribution of supplies and materials, the setting up of field trips and assemblies, provision for welfare needs, allocation of equipment, inventory of materials and equipment, coordination of attendance services, and record keeping.

Four resource teachers were assigned to the project, one for each of the areas of English, mathematics, science and health, and social studies. These teachers helped classroom teachers of project pupils in diagnosis of pupil deficiencies and in choice of appropriate remedial approaches. They assisted teachers in planning units, location or preparation of materials, and use of new and specialized equipment. They set up collections of library books, helped plan field trips, and studied new books and learning materials. They assisted in the planning and operation of the in-service training program for the remedial teachers. From time to time they taught demonstration lessons. As need arose and time permitted, they worked with individual pupils or small groups.

Sixteen remedial teachers were added to school staffs. These sixteen teachers were paired with teachers from the regular staff so that project children were in classes of 15 to 20 for English, mathematics, social studies, science and health. The classroom teacher was responsible for planning enrichment activities as well as for the remedial instruction.

In order to intensify personal service given to project children, four visiting teachers were added for Bloom, Cutter, Porter and Taft. A counselor was added at Bloom. Three job-orientation counselors were assigned to Hughes, Taft and Withrow Senior High Schools to work intensively with potential drop-outs.

An indigenous resident aide was hired to work in each of the qualifying junior high schools and Taft Senior High School. The primary responsibility of these aides was to find ways of involving parents more fully in the life of the school through parent meetings and interviews. Eight additional resident aides were distributed among the four schools receiving the concentrated service to assist in such activities as supervision of locker room, hall, and lunchroom, or clerical duties for teachers, nurse, librarian, and office.

Equipment and Supplies. Little equipment was added to that purchased in the first project year. However, much emphasis was given to ways in which the additional equipment could be used. For example, an English teacher experimented with regular recordings of pupils' speech and playbacks to let pupils hear their own progress. Many original transparencies were made for use on the overhead projectors. Pupils were taught to use the overhead projectors to illustrate ideas. More film was purchased to use with the controlled reader. Also, new books with low reading levels were tried on a limited basis. Much wider use has been made of film strip and movie projectors to make subject matter comprehensible to pupils with reading disabilities.

Services. Criteria were drawn up for identification of pupils to be included for remediation. Those pupils a year or more below grade level in reading or mathematics as measured by achievement tests and those pupils performing significantly below the level for their grade in science and social studies were to be included. Those with the lowest scores were chosen first. Every effort was made to give each pupil enrolled remedial help in more than one area of deficiency. Enrichment was built into each remedial area as an integral part of the program. In addition, the pupils included in the project were provided with lunch, school supplies, and emergency clothing if need arose. They received extra counseling help, and those with physical defects were given service through the Health Services project.

The remedial teachers with the help of the resource teachers planned for individual and small group instruction. As a result, pupil interests widened, and two of the junior high school ESEA science sections held science fairs with such varied exhibits as small greenhouses, growth of various molds, an analysis of pond water and soil with identification of living organisms found, electric circuit systems and a model of the heart.

Social studies rooms were filled with murals made to illustrate favorite incidents from American history. These were correct down to the bar on the stockade gate with Indians peering over the wall. Pupils wrote original stories and poems, and they prepared graphic presentations of fractions and decimals.

Pupils went on field trips which grew out of their class work. These took them to a variety of places: the art museums, the natural history museum, the Center of Science and Industry, the airport, the state Capitol, various industries, clinics and hospitals, parks, a general tour of the city, and a bank. Each trip was carefully planned with much discussion before of what to look for and much discussion after of what had been seen, and even more important, discussion of what it all meant to the individual. Trips to movies, art shows, musical events, and the theatre were included for cultural enrichment. The number of school assemblies by professional performers was increased.

Cutter Junior High School used one remedial teacher to set up two sections of pupils who could not adjust to the regular school program. Each of these sections (about 12 pupils) spent half the school day with one teacher. Work in this half day was counseling oriented. Units for instruction were tailored to pupils' needs and interests. Evaluation of social adjustment was made frequently by teacher, counselor, and administrative aide. Pupils were reassigned to ESEA remedial classes as soon as they were ready. Pupils in these two sections were the disturbing boys and girls and/or habitual truants. During the year the absence and tardiness rate decreased significantly. Behavior improved.

During the regular school term the three job-orientation counselors served approximately 50 pupils each, those who would have difficulty finding employment on graduation or those identified as potential dropouts. The counselors conducted group counseling sessions on job skills and opportunities, gathered job information for pupils, helped pupils find part-time jobs and worked with individuals on programs fitted to their interests.

An in-service program of five days was spaced from January through May. One half of each of these days was given to the nature of disadvantaged adolescents, the environment in which they live, and the ways of building self-concept. The other half of the day was given to study of methods and techniques which would make for more effective instruction. The in-service sessions included remedial teachers, resource teachers, administrative aides and those supervisors responsible for supervision of instruction in the four schools.

In the summer component of the project, remedial instruction in mathematics and reading was continued. Other summer services were primarily enrichment experiences: a ceramics workshop, music appreciation, Junior Theatre, social studies, and science. The social studies summer program was built around the theme of Know Your Community. Little time was given to books, but much time was given to studying through first-hand experience on trips, interviewing resource persons and reporting findings. The science summer program was built around use of an outdoor classroom found in the Cincinnati Nature Center and in various parks for collection and identification and for study of the natural environment. Music, Junior Theatre, and art programs made extensive use of Cincinnati's rich cultural summer offerings in opera, theatre, and art shows for enlarging horizons of educationally disadvantaged pupils.

Senior high school pupils were enrolled in a summer workshop in Urban Life, in which they explored the complexities of a modern city government, housing, education, transportation, and employment. The workshop made use of resource personnel, trips into the community, interviews, collection of data from other areas, and discussion and evaluation of what pupils had learned. A Senior Seminar gave service to incoming twelfth grade pupils who have potential for college but who needed help with study skills and background to be eligible for college after high school graduation. This seminar was housed at the University of Cincinnati to take advantage of college facilities and to give the pupils an opportunity to observe college life.

One new service was added to the summer program on a tryout basis. A pre-seventh grade orientation section was set up in each of two junior high schools to give these schools an opportunity to work with those pupils who are unlikely to adjust easily to junior high either because of social immaturity or repeated previous failure. This orientation was built upon the counseling and team approach rather than upon subject matter. The objective was to raise self-concept and give pupils the idea that they can succeed in school.

During the summer extension, counselors helped pupils find either summer or permanent employment, gave training in how to take employment and civil service tests and helped some brush up on English and mathematics skills needed for the job.

A comprehensive in-service training program was incorporated into the summer component for teachers of mathematics, science and social studies. This training stressed individualization of instruction, analysis and diagnosis of pupils' needs and selection and planning of appropriate activities for meeting these needs.

Project Evaluation

Procedures

Because the scope of this project was so broad, most of the stated objectives can be adequately appraised through data collected in grades 7 through 12 of primary and secondary target schools for program evaluation.*

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*The complete program evaluation report is contained in Volume 3, Number 1 of the Journal of Instructional Research and Program Development.

OE 6000 (REV. 9-66)

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TITLE: Education act project evaluation. Part II.

PERSONAL AUTHOR(S): Jacobs, James N. * Felix, Joseph L.

INSTITUTION (SOURCE): Cincinnati Pub. Sch., Ohio. Dept. of Instr.

SOURCE CODE

REPORT/SERIES NO.

OTHER SOURCE

SOURCE CODE

OTHER REPORT NO.

OTHER SOURCE

SOURCE CODE

OTHER REPORT NO.

PUB'L. DATE: -Feb-68

CONTRACT/GRANT NUMBER

PAGINATION, ETC.: EDRS price MF-$0.50 HC-$4.~~40~~ 36 109p.

RETRIEVAL TERMS

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After abstract:
This article is published in "Journal of Instructional Research and Program Development," volume 3, number 3, February 1968.

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Standardized achievement tests, attendance and drop-out rates, results of the Teacher Survey and Student Survey, and self-image test results will be reviewed in the light of specifically defined goals of this project. Generally, these data will concern the total target school population.

In a few cases, however, information collected on the sample of pupils with high and low service will be especially meaningful. Each seventh- and tenth-grade pupil who had received at least 26 hours of remedial or resource instruction, plus one or more additional ESEA services, was identified. If 1966 achievement data were available, these pupils were designated for the high service, primary target sample. They were then matched by sex, grade, and school (and reading achievement for the seventh-grade sample) with low service, primary target pupils. The low-service group had received no ESEA services other than resource center use and parent education. In addition, at the seventh-grade level there was a control school sample identified and matched on sex, grade, and reading achievement.

In addition to this first section, which looks directly at the objectives of the project, this report will contain two other parts. One examines four project instructional and service activities (English language arts instruction, mathematics instruction, attendance services, and guidance and counseling services), plus health services, which were provided under a separate project. To appraise the effects of these project provisions, special matched-pair samples of seventh-grade pupils were drawn from the three primary target junior high schools under the project. For each service, subjects in the treatment group, that is those receiving the service, have been matched with comparison pupils on the basis of all other Title I activities in which the pupils have participated. In other words, if a treatment-group pupil for remedial mathematics, for example, also was involved in science instruction, health services, and guidance and counseling services, his comparison-group counterpart would similarly have had science instruction, health services, and guidance and counseling services with no other Title I benefits.

The five activities evaluated in this section are thus examined in terms of their effects on eight variables, including five achievement subtests, attendance data and number of disciplinary contacts. By comparing the information for 1966-67 with that of the preceding years, changes in the treatment and comparison groups are observed.

It is important to recognize, however, that the pupils selected for each of these activities were those whose limited past progress indicated that they needed the service most. Since this educational deficit has been shown to be cumulative, these pupils might be expected to continue to progress more slowly than the pupils in the comparison groups if no special treatment were given. Thus, if a project service is related to significant positive group differences, it may be considered highly successful.

The third section of this report is an evaluation of the summer school component of the project. All of the preceding material concerns itself with the regular school program. For the summer program the evaluation is based on a variety of locally designed instruments and one standardized achievement test. Because the secondary summer program included numerous activities, each of these instruments will be discussed as the respective part of the program is evaluated.

Results Related to Objectives

Objective 1. To raise the level of pupil achievement in the areas of language arts, mathematics, science and social studies. Without a doubt, the focal point of all activities within the project was the achievement level of project pupils. Most importantly, the project was geared to provide remedial instruction in basic skills of language arts and mathematics.

The subtest means on pre- and post-tests for the various groups in the pupil sample are reported in Table 1. The mean grade scores in Table 1 indicate that seventh-grade pupils in all three groups tended to score about two years or more below norm for the grade level. Although the mean scores for the high service pupils were consistently lower than those of the other two groups, most of these differences were small. This is not true, however, at the tenth-grade level, where high service pupils scored consistently more than three years below the (extrapolated) norm, while the means for the low service group tended to be about two years below norm.

When interpreting the scores of these groups in the light of grade level norms, the norming population for the Stanford Achievement Tests must be considered. These tests were normed on a student population that averaged approximately 108 in I.Q., so that any comparisons with a population of average intelligence or below would be unrealistic. If one considers the achievement test results in light of expectancy for pupils at a given intelligence level, both primary target and control pupils appear much closer to average performance.

The chief focus of this evaluation, however, is on the change that took place in pupil achievement from pre- to post-testing. Thus, one would be interested mainly in comparing the gains made by high service primary target pupils in grades 7 and 10 with those of the low service and control groups.

The gains indicated in Table 1 show that in no area did the scores of high service pupils rise to a significantly greater extent than those of the reference group. At the seventh grade level, only the Paragraph Meaning subtest showed a larger gain for high service than for low service pupils, and here the scores of control pupils rose to an even greater degree. In grade ten the low service, primary target group showed much larger gains

Table 1. Mean Stanford Achievement Grade Scores of Seventh and Tenth Grade Sample Pupils, by Grade, Subtest and Pupil Group.

	High Service Primary Target				Low Service Primary Target				No Service Control			
		Pre	Post			Pre	Post			Pre	Post	
	N	May '66	May '67	Gain	N	May '66	May '67	Gain	N	May '66	May '67	Gain
Grade 7												
Para. Mean.	56	4.20	4.92	.72	56	4.41	5.00	.59	58	4.57	5.41	.84
Spelling	53	4.86	5.59	.73	56	5.17	6.24	1.07	57	4.89	5.85	.96
Language	56	3.68	4.29	.61	57	4.22	5.16	.94	56	4.27	4.69	.42
Arith. Comp.	58	4.52	4.89	.37	57	4.95	5.45	.50	61	4.90	5.38	.48
Arith. Conc.	53	4.37	5.35	.98	52	4.62	6.17	1.55	61	4.50	6.22	1.72
Grade 10												
Para. Mean.	58	5.63	6.01	.38	55	7.42	8.20	.78				
Spelling	56	6.47	6.83	.36	52	8.80	9.41	.61				
Language	55	4.86	5.02	.16	53	6.51	7.21	.70				
Arith. Comp.	41	5.85	6.26	.41	43	7.51	7.91	.40				
Arith. Conc.	39	5.88	6.70	.82	42	8.27	8.94	.67				

than the high service group in Paragraph Meaning, Spelling, and Language. The gains in Arithmetic Computation were about the same for the two groups, and the Arithmetic Concepts gain favored the high service pupils to a slight degree.

These results confirm the findings of the program evaluation, namely that no significant difference existed in the achievement growth of high service pupils as compared to low service. There is no evidence to suggest that the first objective of the project has been successfully attained.

Objective 2. To increase attendance and decrease drop-out rate. The personnel added to primary target school staffs to accomplish this objective included four visiting teachers, one general counselor, and three job orientation counselors.

There is little evidence of positive results coming from the efforts of these personnel. This is true of the work to improve pupil attendance in that absence rates in primary target schools increased and remained higher than those in other schools. Consistent with the city-wide pattern, the rates were highest in the junior high school years. Although primary target absence rates at this level increased less than those of control schools, the percent of increase was higher than that in secondary target schools. The junior high school absence rose from a baseline percentage of 13.9 per cent to 15.1 per cent in 1965-66 and 16.4 per cent in 1966-67. Thus, the rate of increased absence seems consistent in spite of the efforts of project personnel.

One might wonder whether other forms of project service such as remedial instruction might have a beneficial effect on pupil attendance. This question will be studied in more detail in a later section of the report. A notion of what influences such service had upon attendance can be formed, however, by comparing the changes in absence rates of high service, primary target pupils with low service counterparts. Such a comparison shows that in both grades 7 and 10, the high service sample had higher absence percentages than the low service sample. For grade 7, the high service absence rate increased 11.6 per cent over the sixth-grade absence of these same pupils. The increase for the low service seventh-graders, on the other hand, was 7.9 per cent. Among the tenth-graders in the sample, high service pupils' absence increased 3.1 per cent, while that of low service pupils rose 3.8 per cent.

The effort to decrease drop-out rate similarly appears to have borne little fruit. City-wide the drop-out rates increased in 1966-67 over the preceding year. Such higher rates of drop-outs have been found typical of periods when the rate of unemployment is low. The phenomenon of general increase, then, is not surprising. On the other hand, the fact that target school drop-out rates continued to increase along with the city-wide trend may be distressing to some. One could argue that it could have been worse. Although the number of drop-outs in target schools rose a little less than the city-wide increase from 1965-66 to 1966-67, the difference was obviously too small to be significant. Further, when the 1966-67 rates are compared with the baseline period, the percentage of increase for target schools is approximately equal to that for the total system.

Examining the reasons for which pupils drop out of school reveals a smaller percentage of increase for target than for non-target schools in the four principal categories of withdrawal. Non-target schools showed a greater increase in the number of pupils withdrawing with work certificates, as overage, and because of pregnancy and miscellaneous reasons.

The definition of drop-out upon which these data are based does not take into account the large numbers of young people who leave the regular school program but continue to pursue formal education and other training on a part-time basis. Many of these persons are gainfully employed and self-supporting.

An attempt was made to determine whether the job orientation counselors might have had a positive influence on pupils withdrawing from school. Did those who withdrew from the schools to which these personnel were assigned have better direction as they left the regular program? One means of studying this question is through the reported categories of withdrawal. Table 2 reports the numbers of pupils withdrawn from grades ten through twelve in schools with and without job orientation counselors. The withdrawals have been grouped in such a way that those withdrawn with work certificates are reported separately. The percentages of increase over the baseline period of 1963-65 show that for overage and miscellaneous withdrawals there is practically no difference between schools that had such counselors and those that did not. By sharp contrast, the schools with job orientation counselors show large increases in the numbers of pupils withdrawn with work certificates; the rate of increase for other schools is much smaller.

Table 2. Pupils Withdrawn From Grades 10 through 12 in Schools With and Without Job Orientation Counselors, by Reason and Year.

	Baseline	1965-66		1966-67	
	Average N	N	%increase	N	%increase
Work Certificate Withdrawals					
Schools with Job Orientation Counselors	112.0	168	50.0%	255	127.7%
Schools without Job Orientation Counselors	94.5	90	-4.8	121	28.5
Overage & Miscellaneous Withdrawals					
Schools with Job Orientation Counselors	278.5	312	12.2	376	35.0
Schools without Job Orientation Counselors	233.5	262	12.2	319	36.6

Even though the job orientation counselors worked with a limited number of pupils, one need not conclude that their influence was restricted to these special counselees. The evidence indicates dramatically that pupils had better direction in leaving school in those schools where the

counselors were assigned. At very least, the marked increase in the number of pupils withdrawn with work certificates underscores the need for special service personnel in these schools to give adequate guidance to these young people as they move into the working world.

Objective 3. To improve pupil motivation through changing attitudes toward: a. school and education, b. occupational aspirations, c. expectancy of success in school. Motivating pupils to learn is a fundamental prerequisite to educational success. The attitudes that pupils bring to the learning situation--the way they feel about school, the kind of job to which they aspire and their expectations of success--are critical.

Teachers in target schools were given an opportunity to rate pupil motivation through the Teacher Survey. Compared with the city-wide rating given this item, the result seems to substantiate the general notion that disadvantaged youngsters have less desire to learn than those from higher cultural backgrounds. From 1965-66 to 1966-67 target school secondary level teachers changed little in their rating of this item.

This fact is not very surprising, however, since such affective characteristics as motivation are apt to shift only at such a slow rate as to be imperceptible. A more direct means of appraising pupil attitudes is through an instrument such as the Student Survey, where pupils were asked various questions that might reflect their feeling toward school, toward jobs and toward their possibilities of success.

The responses of primary target, secondary target, control and suburban pupils to certain items of the Student Survey that seem appropriate to the objective are reported in Table 3. The percentages of affirmative responses shown in this table yield an inconsistent pattern. In some cases primary target percentages are higher than those for any other group. For example, more PT pupils than ST, C or suburban pupils say that they like school. Similarly, the average percentages for the entire Valence Toward School

Table 3. Percentages of Affirmative Response by Secondary Pupils to Selected Student Questions, by Item, Factor, Year and Group.

Factor* Items (N)	Primary Target (2436)	Secondary Target (4031)	Control (1555)	Suburban (1586)
Factor 1: Valence Toward Teacher				
Do you need more help from your teacher?	60.7%	58.4%	51.9%	47.4%
Factor 2: Valence Toward School				
Do you like school?	78.1	75.2	63.9	70.3
Do you like your school?	71.4	63.8	65.6	71.4
Would you like to spend more time in school?	17.8	16.8	10.9	10.3
Do you look forward to coming to school each morning?	66.0	62.8	46.8	38.1
FACTOR AVERAGE	58.3	54.7	46.8	47.5
Factor 3: School Anxiety				
Are you satisfied with the grades on your report card?	35.0	37.5	34.4	33.6
Do you worry about your school work?	72.8	73.4	71.7	76.1
Are you doing better in your school work this year?	59.3	63.8	56.1	59.2
Do you get praise at home for good school work?	65.4	67.6	62.9	69.2
FACTOR AVERAGE	58.1	60.6	56.3	59.5
Factor 4: School Aspiration				
Do you think you will graduate from high school?	92.3	93.0	87.9	95.6
Do you hope to go to college?	71.4	75.8	59.9	81.1
FACTOR AVERAGE	81.9	84.4	73.9	88.4
Items on 1967 Survey Only				
Do you think you could do well in any school subject if you studied hard enough?	92.5	91.4	89.5	90.0
Are your lowest grades usually your teacher's fault?	17.5	17.7	16.0	14.9
Do you think you could do well in any kind of job you choose?	73.3	73.2	59.7	57.3

*Based on factor analysis.

factor is highest in primary target schools. On the other hand, primary target pupils seem to be less anxious about school and seem to have a somewhat lower school aspiration level.

One rather interesting comparison made possible by Table 3 relates to the two items that were added to the survey after the factor analysis. Pupils were asked whether they thought they could do well in any school subject and in any kind of job. The affirmative responses varied little from one category of schools to another where school subjects are concerned. For jobs, on the other hand, appreciably more target school children feel that they could be successful at any level than do control and suburban pupils.

Objective 4. To improve the self-image of pupils. It is commonly believed that the self-image of disadvantaged children is considerably lower than that of children in suburban areas. Assertions to this effect abound in the professional literature, and a number of studies have tended to support this hypothesis.

Local research, however, has not yielded results consistent with this point of view. In the first year of Education Act evaluation the self-image of target school children at all age levels compared favorably with that of control pupils. Because the population of the control schools was similar in socio-economic level with that of the target schools, this finding was interpreted with caution. In the 1966-67 program evaluation a comparison was drawn with pupils in suburban schools.

Table 4 provides a summary of the results of the two self-image instruments used for sample pupils in grades 7 and 10. At the seventh-grade level comparisons with a sample of suburban pupils are made. These criteria show no evidence of consequence that the ESEA program is bettering the attitudes or self-concept of children. Analysis of variance revealed no significant difference among the means of the various groups. There is a hint, however, that suburban children have a better self-image in that both means were higher than the other groups in grade 7.

Table 4. Mean Raw Scores of Sample Pupils on Tests of Self-Image, by Grade, and Pupil Group.

	High Service Primary Target Mean	High Service Primary Target (N)	Low Service Primary Target Mean	Low Service Primary Target (N)	No Service Controls Mean	No Service Controls (N)	No Service Suburban Mean	No Service Suburban (N)
Grade 7								
What I Am Like	110.25	(55)	113.50	(56)	110.64	(61)	114.87	(100)
House-Tree-Person	19.31	(13)	19.39	(18)	19.20	(61)	20.12	(91)
Grade 10								
What I Am Like	117.39	(61)	112.85	(52)	---		---	
House-Tree-Person	19.62	(63)	19.96	(52)	---		---	

Results Related to Instructional and Service Activities

For pupils whose achievement indicated considerable need for remedial instruction, the project provided the services of such teachers, who worked in combination with regular classroom teachers. Class sizes were thus reduced appreciably, so that special pupil needs could be attended to. In remedial English, for example, efforts were directed toward improving language usage skills as well as promoting growth in reading ability. Hopefully, by improving their power to read with comprehension and express themselves in writing, these pupils would be better equipped for success not only in English courses but also in their other school subjects.

Besides English and Mathematics remediation, attendance, health and guidance services were subjected to evaluation on the basis of individual pupil growth.

The seventh grade was chosen as the level for this evaluation. This decision was based on the fact that there are three primary target junior high schools but only one senior high school. Of the three junior high school grades, only the seventh was tested in the spring of 1966-67. To form the treatment and comparison groups, an attempt was made to match each pupil participating in a given activity with another pupil on the basis of whatever other ESEA services were received.

Eight variables were chosen for comparison. These included five Stanford achievement subtests for which the grade scores for the sixth-grade testing in February, 1966, were compared with the grade scores of May, 1967. In addition, the number of days absent and times tardy in the 1965-66 school year were compared with those of 1966-67 for both the treatment and comparison groups. A final comparison was made for the number of disciplinary contacts that each pupil had with the school administration in 1966-67. Comparable data were not available for the preceding year.

Remedial English. For remedial English instruction, the pre- and post-treatment means of the treatment and comparison groups of these eight variables are reported in Table 5. This table includes one of the most favorable findings of the entire Title I evaluation. On the Language subtest, the 43 pupils in the treatment group achieved an average growth of approximately nine months in the period from February, 1966, to May, 1967. When compared to the difficult Stanford norms, this growth might be viewed as less than normal expectation. But the Language subtest scores of both the treatment and comparison groups were the lowest of the entire battery. While the treatment group advanced approximately nine months in the period between pre- and post-tests, the comparison group showed only about two months' growth. These means were subjected to analysis of covariance, which showed the difference between the groups to be statistically significant at the .05 level (F=4.77; d.f. 1.79).

It is probably true that the language skills of these pupils still need much improvement. It is also true that the sample was small. The matching of groups, now somewhat distorted by missing data on a number of pupils, could not possibly control all variables that might influence language achievement. Yet the very fact that pupils with small-group intensive instruction showed greater achievement, especially in an area that showed such retardation, is a significant positive finding.

Aside from the area of language, the other findings on the remedial English sample are not significantly favorable. There is no evidence that the instruction had a positive influence on Paragraph Meaning or Spelling achievement. Although the treatment group showed a larger gain on Paragraph Meaning than the controls, this difference is not significant. Nor do the data on attendance and disciplinary contacts indicate improvement of pupil attitudes toward school as a result of remedial instruction.

The main conclusion in the evaluation of remedial English instruction, then, is that the skill area that probably received most attention did show a significant gain, while the instructional service seemed to have little effect on any other of the measured variables.

Table 5. Pre- and Post-Treatment Means on Eight Variables for Seventh-Grade REMEDIAL ENGLISH and Control Groups.

	Remedial English Group				Comparison Group			
	N	1966	1967	Chng.	N	1966	1967	Chng.
Achievement Grade Scores								
Paragraph Meaning	43	3.56	4.48	.92	34	4.22	4.91	.69
Spelling	43	4.20	5.20	1.00	34	4.84	6.02	1.18
Language	43	3.36	4.27	.91*	39	3.79	4.03	.24
Arith. Computation	39	4.53	4.83	.30	39	4.62	4.99	.37
Arith. Concepts	37	3.90	5.25	1.35	35	4.65	5.71	1.06
Days Absent	42	10.6	20.9	10.3	40	15.0	20.2	5.2
Times Tardy	42	3.5	12.4	8.9	40	6.1	12.2	6.1
Disciplinary Contacts	42	--	4.8	--	40	--	3.9	--

*Significantly larger than control gain at .05 level.

Remedial Mathematics. The favorable indications that emerge from the study of the achievement of remedial English pupils are in no way true of the sample of seventh graders who received comparable instruction in mathematics. Following the same sampling procedures described above, treatment and comparison groups of project pupils were identified to evaluate the seventh-grade remedial math service. The means of these groups on the eight variables under study are reported in Table 6.

Table 6. Pre- and Post-Treatment Means on Eight Variables for Seventh-Grade REMEDIAL MATHEMATICS and Control Groups.

	Remedial Mathematics Group				Comparison Group			
	N	1966	1967	Chng.	N	1966	1967	Chng.
Achievement Grade Scores								
Paragraph Meaning	31	3.64	4.37	.73	34	4.19	4.77	.58
Spelling	33	3.98	4.10	.12	36	4.33	4.78	.45
Language	32	3.34	3.80	.45	35	3.71	4.21	.50
Arith. Computation	31	4.50	4.71	.21	33	4.84	5.21	.37
Arith. Concepts	29	4.46	5.01	.55	33	4.64	5.42	.78
Days Absent	40	14.1	24.6	10.5	42	13.8	23.4	9.6
Times Tardy	40	5.8	14.8	9.0	42	4.3	9.1	4.8
Disciplinary Contacts	40	--	14.9	--	42	--	2.3	--

With the single exception of Paragraph Meaning subtests, all of the changes from 1966 to 1967 favored the comparison group. The difference in achievement gain in Paragraph Meaning was not significant. Of greatest importance are the results of the two arithmetic subtests. In Arithmetic Computation, the treatment group showed a mean achievement increase of only two months from February, 1966, to May, 1967, as compared to a four-month gain for the comparison group. While the growth in Arithmetic Concepts was somewhat more encouraging (five and a half months for experimental pupils), the control group showed a still larger gain.*

One interesting fact revealed by the achievement data in Table 6 is that the pupils receiving remedial instruction scored lower than comparison pupils on both pre- and post-tests in all areas. Although these pupils were identified as needing math remediation, their mean score on both arithmetic tests was higher than on any of the other tests. Some of the treatment group, and the comparison as well, in fact, did receive remedial English instruction.

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* It should be noted that teachers hired under the project to give remedial instruction were typically less experienced than most regular classroom teachers. Because the Education Act program was inaugurated after mid-year of 1965-66, it seemed desirable to make new appointments for these project positions, rather than to take teachers away from the classes they had been serving through the first part of the year.

As with the remedial English sample, the attendance and disciplinary data also failed to show favorable results. Treatment pupils were absent and tardy more often than comparison pupils and showed larger increases in 1966-67. They were involved in significantly more disciplinary contacts with the school administration.

Attendance Services. Under the project, attendance services were provided for those pupils whose patterns of school attendance, either in the past or in the course of the current school year, were irregular. The method of identifying pupils for this service introduces a stronger bias into the evaluation than any that existed for achievement areas. Measures of pupil achievement take place at a given time, and comparative scores are assumed to reflect change that has occurred from one measurement to the next. Attendance data, on the other hand, are accumulated over a period of time, and the very fact that these data are unfavorable may be the basis upon which a pupil is selected to receive attendance service.

It is not surprising, then, that the pupils who made up the treatment group for attendance services showed larger increases in days absent than their comparison-group counterparts. As Table 7 indicates, the mean number of days absent for the treatment group in 1966 was 24 as compared to approximately 12 days for the comparison sample. Consistent with established patterns at the start of junior high school, the comparison group absence increased about 12 days for 1967. Treatment pupils, on the other hand, showed an average of approximately 27 more days of absence in the latter year.

Tardiness, which was identical for the two groups in the first year, increased to a much greater extent for the treatment groups than for the comparison groups. Similarly, the treatment pupils had more disciplinary contacts than those in the comparison group.

In achievement areas there was much greater similarity between the two groups than existed for the remedial instruction sample. This was true of both the 1966 and 1967 test results. On three of the five subtests, the treatment group made greater gains than the comparison group, but none of these differences was significant.

Table 7. Pre- and Post-Treatment Means on Eight Variables for Seventh-Grade ATTENDANCE SERVICES and Control Groups.

	Attendance Services Group				Comparison Group			
	N	1966	1967	Chng.	N	1966	1967	Chng.
Achievement Grade Scores								
Paragraph Meaning	21	3.83	4.63	.80	39	3.56	4.38	.82
Spelling	22	4.41	5.30	.89	40	4.51	5.47	.96
Language	21	3.31	4.02	.71	37	3.81	4.58	.77
Arith. Computation	23	4.52	5.14	.62	41	4.67	5.14	.47
Arith. Concepts	22	3.98	5.39	1.41	39	4.24	5.44	1.20
Days Absent	44	24.0	50.8	26.8	49	11.8	23.9	12.1
Times Tardy	43	4.3	19.6	15.3	51	4.3	11.8	7.5
Disciplinary Contacts	44	--	5.6	--	50	--	3.9	--

Health Services. The selection bias that negates the validity of evaluating attendance services on frequency of absence was probably less operative for health services. Data collected on treatment and comparison pupils for this activity substantiated the hope that health services might lead to more regular attendance. Although the absence of pupils with and without health services showed the expected increase in the seventh grade, this rise was significantly smaller among those pupils receiving this service. At the same time, the treatment group showed significantly greater gains in the achievement area of Arithmetic Concepts.

These data are reported in Table 8. The treatment group showed a mean of about 17 days absent in the sixth grade, while the comparison group averaged about 15. In the seventh grade, treatment pupils averaged 22 days of absence compared to 29 for the comparison group. Analysis of covariance showed this difference to be significant at the .05 level (F=4.02; d.f. 1,90).

Table 8. Pre- and Post-Treatment Means on Eight Variables for Seventh Grade HEALTH SERVICES and Control Groups.

	Health Services Group				Comparison Group			
	N	1966	1967	Chng.	N	1966	1967	Chng.
Achievement Grade Scores								
Paragraph Meaning	43	4.07	4.78	.71	33	3.79	4.42	.63
Spelling	43	4.57	5.22	.65	34	4.49	5.33	.84
Language	44	3.61	4.44	.83	36	3.48	4.10	.62
Arith. Computation	43	4.55	5.02	.47	33	5.00	5.09	.09
Arith. Concepts	39	4.10	5.86	1.76*	33	4.15	5.35	1.20
Days Absent	48	16.6	22.4	5.8 **	45	14.8	29.3	14.5
Times Tardy	48	5.6	13.9	8.3	45	4.1	10.2	6.1
Disciplinary Contacts	48	--	3.4	--	45	--	4.4	--

* Significantly larger than control gain at .05 level.
** Significantly smaller than control gain at .05 level.

For times tardy, on the other hand, the treatment group had a higher sixth-grade rate and showed a larger increase. They had, however, slightly fewer disciplinary contacts than the comparison pupils.

In all achievement areas except Spelling, the mean scores of the treatment pupils showed greater gains than those of the comparison group. Except for Arithmetic Concepts, however, these differences were not significant.

Guidance Services. To some degree the selection bias that interfered with the evaluation of attendance services may also have occurred in the area of guidance. Pupils seen by counselors frequently enough to be designated as participating in this activity were very often experiencing attendance or adjustment problems. Thus the data on attendance and discipline need to be viewed with this possibility in mind. There is probably less danger of bias in measures of achievement.

The pre- and post-treatment means of achievement measures, attendance, and disciplinary variables for the guidance service groups are shown in Table 9. Three of the five achievement subtests yielded results that favored the comparison group. Of these, Spelling had a notably larger difference but this was not tested for significance. The changes in Language and

Arithmetic Concepts, on the other hand, favored the treatment pupils. Each of these sets of data was analyzed by covariance technique and found non-significant. However, a significant difference (.01 level) favoring the treatment group was found in the area of tardiness. Treatment pupils increased from four to six instances of tardiness, while the comparison group went from five to fifteen. This significant difference (F=9.35; d.f. 1,70) suggests that counselors had a positive effect on encouraging pupils to be more punctual in their school attendance. The difference for disciplinary contacts is too small to be meaningful, while changes in days absent tended to favor the comparison group.

Table 9. Pre- and Post-Treatment Means on Eight Variables for Seventh-Grade GUIDANCE SERVICES and Control Groups.

	Guidance Services Group				Comparison Group			
	N	1966	1967	Chng.	N	1966	1967	Chng.
Achievement Grade Scores								
Paragraph Meaning	28	3.83	4.48	.65	33	3.98	4.68	.70
Spelling	28	4.47	4.50	.03	32	4.66	5.49	.83
Language	28	3.32	4.16	.84	32	3.62	4.15	.53
Arith. Computation	27	4.57	4.82	.25	31	4.60	5.03	.43
Arith. Concepts	26	4.35	5.62	1.27	30	4.19	5.22	1.03
Days Absent	35	11.9	19.1	7.2	38	18.0	21.9	3.9
Times Tardy	35	3.8	6.1	2.3	38	4.7	14.9	10.2
Disciplinary Contacts	36	--	2.6	--	41	--	3.0	--

Results Related to Components

1. Summer Program

The summer component of the secondary project offered diversified services, which focused chiefly on junior high school pupils. These activities were described in the Co-ordinator's Log of this report. For each segment of the summer program a distinct evaluative approach was used.

Junior High Enrichment. The largest numbers of pupils were enrolled in the junior high school program for pupil enrichment in five areas. Sections in social studies and science operated in most of the seven target junior high schools, while art, music, and junior theater were offered in selected schools.

As with most enrichment areas, the evaluation of this service was difficult in that the program was directed primarily to broadening interests and experiences. Influencing pupil attitudes toward specific fields of education was a fundamental goal. A Summer Enrichment Inventory was designed locally for pre- and post-summer administration to assess changes in pupil attitudes toward education, specific areas of knowledge, and their future lives. Of particular concern was the question of relevancy of specific school subject areas. The first page of the inventory was uniform for all enrichment subjects. In social studies and in science, a second page was designed to pursue the question of relevancy further.

On the first page of the inventory, all pupils were asked six questions which forced them to choose "most" and "least" responses. The alternatives were either the subject areas themselves or activities related to these areas.

The results of these six inventory questions are reported in Table 10. This table shows the pre- and post-test percentages of pupils in each summer enrichment subject who selected that subject or the related activity for "most" and "least" responses. Obviously there was considerable diversity for both "most" and "least." In nearly all cases, however, the subject in which the pupil was enrolled or the related activities were chosen as "most" relevant by a larger percentage than as "least."

The chief focus of interest here, however, is on the changes that took place in the course of the summer. Although there is no control group for comparison, the changes in responses do offer a suggestion of the influence of the enrichment experience on pupils' judgment of relevancy.

Because most of the numbers in the "least" category were small, only the "most" responses were subjected to analysis to determine the signifi-

Table 10. Pre-Test and Post-Test Percentages of Pupils in Each Summer Enrichment Subject Selecting the Subject or Related Activity on the Summer Enrichment Inventory.

		MOST			LEAST	
	Pre	Post	Chng.	Pre	Post	Chng.
SUBJECT YOU LIKE						
Art (N= 23 pre; 18 post)	61%	83%	21%	5%	6%	1%
Dramatics (N= 25 pre; 20 post)	50	37	-13	0	0	0
Science (N=186 pre; 134 post)	34	27	- 7	10	9	- 1
Social Studies (N=277 pre; 207 post)	30	24	- 6	7	16	9
Music (N= 57 pre; 32 post)	46	50	4	2	10	8
SUBJECT YOU KNOW ABOUT						
Art	54	50	- 4	5	6	1
Dramatics	24	25	1	13	5	- 8
Science	26	37	11*	19	10	- 9
Social Studies	33	32	- 1	10	13	3
Music	39	32	- 7	0	6	6
SUBJECT HELPFUL IN LATER LIFE						
Art	35	33	- 2	9	0	- 9
Dramatics	9	5	- 4	23	11	-12
Science	35	36	1	0	10	10
Social Studies	29	21	- 8	8	13	5
Music	27	28	1	11	31	20
JOB YOU WOULD LIKE TO HAVE						
A commercial artist	43	50	7	5	13	8
Professional actor or actress	8	46	38*	44	4	-40
Atomic scientist	31	28	- 3	17	21	4
Social worker	26	28	2	17	13	- 4
Professional singer or musician	40	34	- 6	2	21	19
BOOK YOU WOULD LIKE TO READ						
Adventuring in Art	52	53	1	4	0	- 4
How to Have a Show	5	25	20	36	5	-31
Triumphs of Modern Science	33	34	1	12	13	1
The Life and Death of Cities	38	30	- 8	10	13	3
The Wonderful World of Music	55	47	- 8	2	4	2
TELEVISION PROGRAM YOU WOULD LIKE TO WATCH						
Play about famous artist	24	60	36	13	0	-13
Play about drama studio	4	35	31*	45	11	-34
Play about man who became scientist	40	37	- 3	11	9	- 2
Play about problems of city life	29	30	1	11	13	2
Play about man who wrote music	37	44	7	7	10	3

*Significant at .05 level.

cance of difference between pre- and post-tests. This analysis was done by the chi-square technique.

Three of the differences were found significant at the .05 confidence level. More pupils who were enrolled in science marked this subject as that which they knew most about at the end of the summer session than at the beginning. In the area of dramatics, more pupils selected the job of a professional actor or actress as that which they would most like and a play about a drama studio as the television program they would most like to watch. The changes on both these items from pre- to post-test were found significant. Concurrently, there was, for each of these three items, a rather large decrease in the percentage of "least" responses.

A few other rather large change percentages may be noted in the table, but these were found statistically non-significant. Close observation, however, indicates at least one interesting trend, namely in the area of social studies. Although the change percentages here are consistently small, there was a distinct tendency for pupils selecting the social studies alternative as "most" to decrease in the course of the summer, while those who selected as their "least" response increased in percentage. Several of these percentages come much closer to being significant than the table itself suggests because of the large number of students enrolled in this area. The consistency of this pattern suggests a negative influence in pupil attitudes toward social studies that seems worthy of further study.

Six other questions on the first page of the inventory were taken directly from the program evaluation Student Survey. Because these items were used also in the Secondary School Survey conducted by counselors in drop-out prevention, the responses to these questions will be discussed later.

On a second page of the summer enrichment inventory, pupils enrolled in the social studies classes were asked several other questions about their interests. These questions were intended primarily to furnish assistance in future curricular planning. From a list of 31 items, pupils selected topics about which they would prefer to study more or less than the current curriculum indicated. All these topics related to the content of the secondary social studies curriculum, but many were not specific concerns of the summer program. No restrictions were placed on the number of choices pupils made.

The percentages of pupils selecting each of the items for more or less study are reported for both the pre- and post-tests in Table 11. Of the 31 topics, only three showed increases from pre- to post-test in the percentage wanting to study more. Each of these three increases is small. In the course of the summer, then, there seems to have been a decline in pupil interest in these subjects. This may be simply a result of having continued in school throughout the summer. Since a similar instrument was not used for other enrichment areas, no comparison data are available.

Among the topics ranked high in pupil interest on both the pre- and post-test were the following: Marriage and family life, problems of living in our country, the way people in other countries live, solving personal problems, and job information.

Other questions addressed only to social studies pupils concerned the size of town or city preferred, reasons for attending school, and methods of dealing with school failure. Changes from pre- to post-tests on these items were typically small and apparently meaningless. On both tests the majority of pupils preferred a city as big as Cincinnati or bigger. Preparing for higher education was given as the most important reason for going to school, with job training a distant second. When asked what they would do if they found themselves failing several subjects in senior high school, pupils expressed preferences that were divided about equally between giving up all play time to study harder and staying after school regularly to get extra help.

Table 11. Percentages of Pupils Enrolled in Social Studies Enrichment Indicating a Desire for More or Less Study about Specific Topics.

	STUDY MORE			STUDY LESS		
Topic	Pre	Post	Chng.	Pre	Post	Chng.
Marriage and Family Life	55%	61%	6%	32%	25%	- 7%
Right and Wrong	46	45	- 1	29	27	- 2
History before Civil War	49	33	-16	35	44	9
History after Civil War	49	35	-14	35	40	5
Problems of Living in Our Country	64	51	-13	24	27	3
Services Provided by Cities	43	39	- 4	36	36	0
Way People in Other Countries Live	60	55	- 5	26	28	2
History of World from Beginning	53	43	-10	33	36	3
History of World Since 1700	36	33	- 3	47	39	- 8
Problems of People in Cities	40	43	3	39	35	- 4
Using and Making Maps	31	25	- 6	51	50	- 1
Solving Personal Problems	60	56	- 4	23	21	- 2
Lives of Average People	38	39	1	43	35	- 8
Lives of Great Men and Women	52	49	- 3	29	29	0
Job Information	66	60	- 6	15	17	2
Rights of Citizens	57	42	-15	21	30	9
Functions of Our Government	48	47	- 1	31	31	0
How to Use Library Better	32	24	- 8	34	44	10
How Climate Affects Man	34	29	- 5	39	41	2
Sex	52	46	- 6	26	32	6
Religions of People	50	36	-14	30	41	11
How Products Are Made and Sold	33	25	- 8	43	37	- 6
How Land Affects the Way People Live	38	34	- 4	35	35	0
How Taxpayers' Money is Spent	49	41	- 8	36	41	5
Reading Faster and Better	51	37	-14	33	37	4
Ways to Solve Problems	54	39	-15	24	39	15
Ways of Writing Better	43	32	-11	43	32	-11
Locating and Using Information	50	44	- 6	29	44	15
Expressing Self Before a Group	68	45	-23	23	45	22
Remembering Things and Places	51	50	- 1	26	50	24
Events of Past Affecting Present	46	44	- 2	33	44	11

A special second page of the inventory was also designed for participants in science enrichment classes, to provide information for future curriculum plans. These pupils were given five sets of three questions each and asked to indicate independently the one question in each set they know most about and the one they would most like to read or study about. At the same time, they were to make "least" choices in both knowledge and interest. The results are reported in Table 12.

A number of interesting changes took place from pre- to post-test in both knowledge and interest. For example, on the pre-test approximately half of the pupil selected "What causes rain?" (59%) and "How does water get in the air?" (49%) as the question in each set that they knew most about. Both these percentages declined considerably on the post-test. In the area of interest the questions "Why is the sun necessary for life?" and "Why do animals need plants?" showed marked increases from pre- to post-test.

It is difficult to derive any generalization from the results of the special social studies and science questions. The information yielded is pertinent to process evaluation; it is potentially useful to supervisors and teachers in planning future projects.

Senior High Social Studies. Another offering of the summer component, this one at the senior high level, was a Workshop on Urban Life. This course was offered at two of the target senior high schools, but low enrollment forced cancellation of one of the classes. In the other class, 17 senior high school pupils completed the course and were given a content test at the close of the session. This brief test was intended to measure whether pupils had learned key facts and concepts and whether they had confidence in this knowledge. The instrument included three questions on each subject matter unit. One question was factual in nature, another designed to test student understanding of a concept and the third requiring

Table 12. Pre- and Post-Test Selections of Science Questions According to the Extent of Knowledge and Interest.

	KNOWLEDGE						INTEREST					
	Most			Least			Most			Least		
	Pre	Post	Chng	Pre	Post	Chng	Pre	Post	Chng	Pre	Post	Chng
How is energy obtained from food?	28%	37%	9%	32%	37%	5%	28%	34%	6%	26%	33%	7%
What causes rain?	59	41	-18	23	30	7	35	32	- 3	51	35	-16
How do dead organisms help living organisms?	13	22	9	45	33	-12	37	34	- 3	23	32	9
Why do trees need leaves?	33	48	15	32	20	-12	33	30	- 3	31	31	0
How does water get in the air?	49	34	-15	24	28	4	38	34	- 4	36	30	- 6
How do earthworms get their food?	18	18	0	44	52	8	29	36	7	33	39	6
Why is the sun necessary for life?	57	61	4	16	19	3	38	50	12	30	23	- 7
What happens to air when animals breathe?	15	15	0	57	44	-13	37	26	-11	33	38	5
How can some animals live in water?	28	24	- 4	27	37	10	25	24	- 1	37	39	2
Why do animals need plants?	76	58	-18	18	20	2	31	41	10	44	34	-10
What's the difference between a habitat & a niche?	12	19	7	38	35	- 3	42	27	-15	26	37	11
What causes some trees to have odd shapes?	12	23	11	44	45	1	27	32	5	30	29	- 1
How is nitrogen used by plants & animals?	21	23	2	41	41	0	37	43	6	25	31	6
How does light influence plants & animals?	50	46	- 4	25	24	- 1	28	31	3	35	23	-12
How do frogs get their food?	29	31	2	34	35	1	35	26	- 9	40	46	6

the student to make a value judgment. In addition to indicating whether each statement was true or false, the pupil assigned point values to the questions as an index of confidence in his response.

Analysis of the results of this test yielded a rank-order correlation coefficient of .14 between the number of pupils answering the items correctly and the confidence score for the item. There was, then, virtually no correspondence between the confidence that pupils had in their responses and their ability to answer the items correctly. Pupils generally showed more confidence in their understanding of concepts than in either their mastery of facts or their judgments. There was no meaningful difference from one subject unit to another in either their confidence or their knowledge.

Senior Seminar. In still another portion of the summer component, in-coming twelfth-grade pupils participated in a senior seminar designed to develop study skills that were considered basic to success in further education. For evaluation purposes, both pupils and teachers completed a rating scale of 16 skill items, both before and after the seminar.

The results of this rating scale showed that, on the average, pupils graded themselves about the same at the end of the session as at the beginning. Teachers, on the other hand, gave higher ratings on the post-test. Overall, there was little apparent relationship between the pupil self-rating and the ratings given by teachers, as far as specific study skills were concerned.

Participants in the seminar also completed a questionnaire designed to measure their reactions to specific aspects of the course. In general, the results of this question suggest that pupil participants thought that the seminar was a worthwhile experience. The small number of pupils participating in the senior seminar make it inadvisable to analyze these results further.

Reading Center. Another important part of the summer component was a reading center conducted for the improvement of reading skills and habits of disadvantaged junior high school pupils. Over 100 students participated in this activity. Their progress was appraised by means of a pre- and post-administration of the Califorinia Reading Test, which yields both vocabulary and comprehension scores.

Pre- and post-test results were available for 95 of the pupil participants. The mean grade scores are reported in Table 13.

Table 13. Results of Pre- and Post-Treatment Administration of the Elementary Edition of the California Reading Test to Pupils in the Summer Reading Center (N=95).

	PRE-TEST		POST-TEST		
	Mean Grade Score	Standard Deviation	Mean Grade Score	Standard Deviation	Avg. Gain
Vocabulary	5.57	1.34	6.01	1.58	.44*
Comprehension	5.50	1.66	6.36	1.30	.86**
Total Score	5.59	1.32	6.24	1.98	.65**

*Significant at .05 level.
**Significant at .01 level.

On the average, Reading Center participants advanced from about mid-fifth-grade level to beginning-sixth-grade level in Vocabulary and to about the fourth month of the sixth grade in Comprehension. These are clearly significant gains, especially if one assumes that these pupils would have made no progress in reading skill without the service of the Reading Center. Such an assumption seems logical, especially since past research suggests that school-related skills of disadvantaged pupils often deteriorate in the course of a summer away from school. Furthermore, the achievement gains revealed by the data in Table 11 surpass normal expectation for the period of time between pre- and post-test. They are especially noteworthy in view of the five- to seven-month gain that has been found typical of disadvantaged pupils for a full year. As a means of increasing reading vocabulary and comprehension, then, the Reading Center must be judged a distinct success.

Remedial Mathematics. Junior high school pupils whose performance in math indicated a need for instruction and practice in basic skills participated in the summer remedial mathematics program. The course of study for this instruction concentrated on the fundamental processes of addition, subtraction, multiplication, and division.

To evaluate this training a locally devised test of basic operations was administered at the beginning and end of the course. Pre-test results show 156 pupils achieving a mean score of 23.23 on the 50-item test. The mean for the post-test was 31.18. A t-test of this difference showed it to be significant at the one per cent level of confidence (t=7.57; d.f.155).

Although no norms are available for this test, the significance of pupil growth in the course of the summer appears comparable to that of reading center participants in reading comprehension. It is probably true, then, that the math pupils attained more progress in mastery of basic skills than one would normally expect in a two-month period.

It should be pointed out that teachers used the pre-test results diagnostically to identify specific weaknesses of pupils. On the extensive questionnaire used for teacher evaluation of the math program, 13 of the 14 teachers indicated that they had so used the pre-test responses. Thus, the higher level of performance on the post-test is probably due, in large measure, to focus on a limited number of basic operations represented by specific test items.

Pupil Orientation. The summer component also provided special orientation classes at two target junior high schools and one senior high school. These classes were for a limited number of the pupils who would be entering grades seven and ten in the fall. These pupils were asked to complete the Pupil Opinion of Summer Program survey used to evaluate the elementary level Summer School Learning Camp. The results of the five quantifiable items on this questionnaire are presented in Table 14.

Although the number of pupils responding is small, their replies suggest considerable satisfaction with the orientation experience. To an even greater extent than the elementary pupils, they judged the program very worthwhile and very much better than that of the preceding summer. Their responses to the open-end questions further confirmed their acceptance of the orientation.

Table 14. Responses of Pupils in Pre-Seventh and Pre-Tenth Orientation Classes of Quantifiable Items on the Pupil Opinion of Summer Program Survey.

Questions	Response	Pre-7 N=37	Pre-10 N=16
How worthwhile was your summer school experience?	very much	73%	88%
	a little	24	13
	not at all	3	0
Were you in summer school last year?	Yes	30	20
	No	70	80
How would you rate the value of this year's program in comparison to last?	very much better	70	67
	a little better	20	0
	about as good	10	0
	a little worse	0	33
	much worse	0	0
How many times were you absent this summer?	none	39	19
	once or twice	44	63
	three to five times	14	19
	more than five	3	0
How do you feel about going back to school in September?	eager	40	33
	worried	17	8
	unhappy	14	17
	neutral	29	42

Drop-Out Prevention. Special service personnel were employed in the summer component to work with youth of secondary school age who had dropped out of school and with others who had been identified as potential drop-outs. Counselors and visiting teachers worked for a few weeks in each of the target secondary schools and the surrounding community.

The counselors' final report shows a total of 716 contacts with 415 different pupils. Exactly half of these were by letter or telephone. Of the personal contacts, 50 per cent included only the counselor and the pupil, and 28 per cent were the result of home visits by the counselor.

Counselors were asked to classify their conferences with pupils according to major emphasis. Forty-four per cent of the conferences reportedly focused on the pupil's regular school program for the coming year. Other kinds of educational planning were the main topic in another 22 per cent, while personal concerns were primary in 19 per cent and vocational issues in 15 per cent.

Over half (53 per cent) of the pupils were contacted once by the counselor. Two contacts were reported for 31 per cent; 16 per cent of the pupils were contacted three or more times.

The frequency with which counselors helped pupils formulate various educational plans is shown in Table 15, along with the number of pupils referred to other agencies for additional help. This same table also summarizes the reports of visiting teachers.

Where further education was planned, both groups of special service personnel reported that the majority of pupils intended to return to the regular program. As one would expect from the nature of their jobs, however, counselors indicated a considerably higher percentage in this category (85 per cent) than visiting teachers (64 per cent). Similarly, the ratio of pupils planning further education to those referred for other assistance is higher for counselors (3 to 1) than for visiting teachers (1.4 to 1).

Table 15. Numbers of Pupils Served by Counselors and Visiting Teachers (Summer,1967) in Planning Further Education and Obtaining Help from Other Agencies.

	Counselors	Visiting Teachers
Pupils Planning Further Education		
Regular Program	265	164
Evening Classes	16	61
Afternoon Classes	3	12
MDTA Classes	1	14
Other Programs	27	6
Total	312	257
Pupils Referred for Other Assistance		
Neighborhood Youth Corps	22	64
Youth Opportunity Services	4	65
PEPSY	0	39
Other Agencies	77	12
Total	103	180

In all, visiting teachers reported contacts with 703 of 773 pupils referred to them. Of the total referrals, 66 per cent were for youth who had dropped out of the regular school program. Only 14 per cent, on the other hand, involved pupils who had completed the previous school year in the regular program. The remaining 20 per cent of the referrals were for persons who had been in institutional placement or in some other school district.

One other source of pertinent data was provided by the work of the counselors. In contacting potential drop-outs, counselors administered a Secondary School Survey, which asked questions about the number of contacts with and the amount of help received from counselor and visiting teacher ("or attendance officer") in the past year. Also included on the questionnaire were ten questions from the program evaluation Student Survey.

About half of the 139 respondents (49.3 per cent) said they remembered having four or more conferences with a school counselor in the course of the year. On the other hand, 6.6 per cent remembered none. Concerning how much help they had received from counselors 48.9 per cent said "very much" and 43.9 per cent "a little." For visiting teachers the high percentages of response were at the other end of the scale, with 45.5 per cent reporting no conferences and 43.9 per cent no help received. Thus, for a substantial portion of these potential drop-outs, visiting teacher contacts either were not with the pupil himself or were not remembered by him.

Counselees' responses to the ten questions from the Student Survey are reported in Table 16. The percentage of this group answering each item affirmatively is compared to the total target secondary school response of the regular school year. A similar comparison is made for the responses of summer enrichment pupils to six of the items.

Table 16. Percentages of Affirmative Response to Ten Student Survey Items for Summer Participants Compared to Total Target Secondary School Population.

	Total Target N=6467	Summer Counselees N=139	Summer Enrichment Pupils Pre N=545	Summer Enrichment Pupils Post N=285
-- Do you like school?	76.3%	79.6%	---	---
-- Do you get along better outside of school than in?	58.7	56.5	---	---
-- Are you satisfied with the grades on your report card?	36.6	21.2	48.8	54.2
-- Do you think you will graduate from high school?	92.7	81.3	---	---
-- Do you hope to go to college?	74.1	56.9	---	---
-- Do you talk at home about what kind of job or career you will have after you are out of school?	83.4	70.4	90.0	85.5
-- Do you think your teachers usually expect too much from you?	41.1	31.4	34.0	34.0
-- Do you think you could do well in any school subject if you studied hard enough?	91.8	88.3	94.4	86.9
-- Are your lowest grades usually your teacher's fault?	17.6	10.9	11.6	18.9
-- Do you think you could do well in any kind of job you choose?	73.2	70.1	71.7	68.9

As a group the summer counselees expressed considerably less satisfaction with report card grades than the total target group. Enrichment pupils were more satisfied and became increasingly so from beginning to end of summer.

Interestingly, both counselees and enrichment pupils gave fewer affirmative answers than the total target group to the question, "Do you think your teachers usually expect too much of you?" Similarly, fewer counselees blamed teachers for their lowest grades. Enrichment pupils, who also gave fewer affirmative answers to this question at the start of the summer, attributed much more blame for low grades to their teachers at the end.

As expected, the group of 139 counselees who completed the survey indicated a lower school aspiration level than the total target group. This is evident in the responses to questions on high school graduation and going to college. They also reported less discussion at home about future career.

Conclusions

Objectives. The evaluation of the project's success in attaining its defined objectives depended primarily on data collected in program evaluation. Relating these data to the specific goals set down for this project leads to the following conclusions:

1. There is no evidence to indicate that gains in pupil achievement resulted from the services provided. The sample of seventh and tenth grade pupils receiving remedial instruction showed no greater growth in achievement from 1966 to 1967 than other primary target pupils or control pupils.

2. There is no clear indication that efforts to decrease absence and drop-out rates were successful. For primary target schools, both categories of data increased over last year, remaining higher than for non-target schools. Target schools with job orientation counselors showed a larger percentage of increase in numbers of pupils withdrawing with work certificates.

3. Primary target teachers saw no improvement in pupil motivation, continuing to rate this quality considerably lower than teachers in other schools. The responses of primary target pupils to the Student Survey showed a higher valence toward school than for the other pupil groups, but less school anxiety and a lower aspiration level.

4. No significant difference in self-image was found among primary target children. There is only a hint that the self-image of target pupils may be lower than that of suburban children.

Instructional and Service Activities. From the comparison of pupils receiving specific project services with respective comparison groups, the following conclusions are drawn:

1. Remedial English instruction was effective in increasing language achievement. The sample of pupils receiving this service showed significantly higher gains in Language subtest scores than the control group. No significant difference was found in other achievement areas or in attendance or disciplinary data.

2. No positive effects are evident in the evaluation of the remedial mathematics instruction. The sample of pupils receiving this service showed smaller gains than the control sample in all achievement areas except Paragraph Meaning and larger increases in absence and tardiness. They had significantly more disciplinary contacts with the school administration.

3. The evaluation of attendance services is handicapped by a selection bias, so that no evidence is available to confirm or deny their effectiveness.

4. Health services may have a positive influence on school attendance. Pupils receiving these services showed smaller increases in absence than their control counterparts. They also had significantly greater gains in scores on the Arithmetic Concepts subtest.

5. Guidance services had a beneficial effect in decreasing the frequency of pupil tardiness. Pupils receiving guidance, however, showed no greater achievement gains than those in the control group.

Components. Only the summer component of the project was evaluated separately. The various instruments used in this evaluation produced results that generally indicate success. Specifically, the following conclusions seem warranted concerning various areas of the summer program:

1. Junior high school summer enrichment classes in science had a positive influence on knowledge as judged by pupil participants. Even more obvious was the positive effect of the dramatics classes on pupil interest. The social studies classes, on the other hand, seemed to influence the interest of pupils in a slightly negative direction.

2. The Senior Seminar appears to be a worthwhile offering for a small number of pupils. Pupils considered the program profitable, although their rating of their own study skills showed no gain. Teachers, on the other hand, rated pupil skills higher at the end of the session.

3. Instruction offered in the summer Reading Center and in the remedial math classes produced highly favorable results in terms of pupil achievement. Pupils in the Reading Center showed significant gains

that exceeded normal expectation on the California Reading Test. On a specially prepared math test, pupils receiving this service showed similar progress.

4. Pupil evaluation of special orientation sessions for incoming seventh- and tenth-graders indicates that this program was well received. Their reactions were more positive than those of the participants in the elementary project, and their responses to open-end questions confirmed their satisfaction.

5. Counselors and visiting teachers employed for part of the summer in an effort to prevent drop-outs appear to have performed a worthwhile service. In helping the pupils plan for future education, they referred the great majority to the regular school program. Those for whom other kinds of educational opportunity or agency help seemed advisable were referred to that program which seemed to offer the most potential assistance.

Recommendations

Despite a lack of evidence of general success in achieving project objectives, sufficient specific areas of attainment are revealed in this evaluation to justify some optimism. To build upon these successes, it is important that all aspects of project services be carefully examined for possibly constructive modification. That provision be made for systematic process evaluation of this type is the primary recommendation emerging from this report. Specifically, the following suggestions are offered:

1. The wisdom of using remedial teachers in the way they are currently employed in the project should be studied. Although significant gains in a few areas are promising, there seem to be grounds for questioning whether the current method of assignment is preferable to having remedial teachers work with still smaller groups of pupils. It is possible that the present method of operation is most effective for some subject areas, e.g., language, while acquiring another skill like reading or arithmetic computation could best be attained through more individualized instruction.

2. Whether the current assignment procedures are retained or pupils put in smaller groups, teachers must continually look for ways to adapt their techniques both to the kind of pupils they have and to the size of the group. There is little benefit derived from smaller class groupings unless teaching techniques are modified to obtain a greater degree of pupil involvement and more individualized attention.

3. Service activities that support the instructional offerings of the project should also be subjected to process evaluation. Physical health services seem to be providing vital beneficial support. With modifications that have taken place in the past year in the

administration of these services, their contribution seems considerably more substantial. Counseling and visiting teachers services also have produced some favorable results, but this entire area of supportive activities should continue to be studied to insure that funds are being used to maximum advantage.

4. Similarly, expenditures for other personnel such as administrative aides and resource teachers need to be examined. Although the contribution of these professional personnel has not been directly evaluated, they represent a sizable portion of the budget. It is important that the benefit derived from their services by project children justify these positions.

5. Efforts must continue to obtain the greatest possible degree of parent involvement. Resident aides must be used primarily to stimulate other parents in the school community to take a more active interest in the education of their children. Toward this end, the number of clerical and other routine duties assigned to resident aides should be minimized.

6. Project administrators and supervisors should give the in-service training of teachers the attention it deserves. The earlier evaluation of the Staff Leadership Development project pointed up the need to help target school teachers understand their pupils, especially in terms of social characteristics. With the discontinuance of this project, there is a danger that this important need might be neglected.

7. If at all possible under the Title I budget, a summer program similar to that of 1967 should be provided. The services of the Reading Center and the remedial mathematics classes appear beneficial and most basic. The orientation program for incoming seventh- and tenth-graders and some of the enrichment subjects--especially dramatics--should probably receive next priority.

Summary

In an effort to combat the disadvantagement of secondary level target school pupils, this project provided concentrated service in four secondary schools and limited service in six others. Raising pupil achievement in academic areas was a primary goal. The project also sought to decrease absence and drop-out rates and improve pupil motivation and self image.

Personnel provided through project funds included administrative aides, resource and remedial teachers, special service personnel and resident aides. Using equipment and supplies purchased with project funds, the project staff gave remedial instruction in English, mathematics, science and social studies. A variety of enrichment activities was also offered to broaden the interests and increase the motivation of disadvantaged pupils. Supportive personnel sought to assist pupils in a number of ways so that they could gain maximum benefit from the instructional services furnished under the project. A summer extension offered diversified remedial and enrichment activities, mostly at the junior high school level.

The evaluation of the project in terms of its specified objectives relied on data collected earlier for program evaluation. Consistent with previous findings, no evidence was found to indicate general project success in attaining these goals.

In evaluating specific instructional and service activities, however, several findings were significant. Remedial English instruction was determined to be effective in increasing language achievement. Health services was related to better school attendance and achievement in arithmetic concepts. Guidance services was related to a decrease in pupil tardiness.

The summer component of the project showed similar individual successes. The reading center and remedial mathematics classes increased achievement significantly, with pupil growth exceeding normal expectation. Science and dramatics enrichment classes seemed to have a beneficial effect, and other aspects of the summer program, notably special orientation sessions, seemed to have reasonable merit.

Following from this evaluation, the primary recommendation is that systematic process evaluation be conducted to study every phase of project operation. Especially, the method of assigning teachers and the utilization of supportive personnel need to be carefully examined.

Table 17 is a summary of the major findings in this project evaluation.

Table 17. Summary of Project Findings by Objective, Activity, and Component

Objective	Finding	Reference
1. Higher Achievement	No significantly greater achievement gains for high service pupils than for low service.	pp. 12-15
2. Lower Absence and Drop-out	No significant difference in the rate of increased absence and drop-out among types of schools or pupil groups.	pp. 15-18
3. Improved Motivation	No change on pupil motivation according to teacher judgment.	pp. 18-20
4. Improved Self-Image	No significant difference among self-image scores of high service pupils and those in other groups.	pp. 20-21
Activity		
1. Remedial English	Significantly greater gains in Language achievement for pupils receiving this service than for those in comparison group.	pp. 22-23
2. Remedial Mathematics	No significantly greater improvement for pupils with this service than for comparison group.	pp. 23-25
3. Attendance Services	Larger increases in days absent for pupils receiving this service than for comparison group (note selection bias).	pp. 25-26
4. Health Services	Significantly smaller absence increases and larger arithmetic achievement gains for pupils receiving this service than for comparison groups.	pp. 26-27
5. Guidance Services	Significantly smaller increases in times tardy for pupils receiving this service than for comparison group.	pp. 27-28
Component		
Summer: 1. Jr. High Enrichment	Significant positive effect on pupil knowledge in science and interest in dramatics as judged by participants.	pp. 28-34
2. Reading and Mathematics	Significant reading and arithmetic achievement gains, with reading growth exceeding normal expectation for summer period.	pp. 37-38
3. Other Activities	Varied activities, especially pre-grade orientation programs, well received.	pp. 34-36, 38-43

CHAPTER 2

ELEMENTARY SCHOOL REMEDIATION AND ENRICHMENT

Abstract

This project has been the most extensive local effort under Title I of The Elementary and Secondary Education Act. It includes fundamental remedial instruction, enrichment activities, learning resource centers, parent involvement, and a summer learning camp. In the evaluation based on functional objectives, only occasional positive results were noted. Similarly, with the exception of language arts instruction, the evaluation of special instructional activities generally failed to show positive differences. Whether further refinement of measurement techniques might reveal other signs of success cannot be determined at this time. Saturday enrichment classes and the summer learning camp were well received, and the resource centers appear to be operating with reasonable efficiency.

ELEMENTARY SCHOOL REMEDIATION AND ENRICHMENT

Introduction

Origin

The Elementary Remediation and Enrichment project (Project 27) was initiated in the Cincinnati schools in February, 1966. From its inception, the project has been aimed primarily at motivating those pupils in primary target schools whose disadvantaged backgrounds have resulted in learning problems.

First Year's History

In the first year of the project, administrative, instructional, supportive and secretarial personnel were added to the staffs of 13 primary target elementary schools. These personnel, working with equipment and materials furnished by the project, made a variety of remedial and enrichment activities available to project pupils in both public and non-public schools.

Early identification and treatment of individual pupils with learning problems was the key objective of these activities. Although the pupil population of every school includes youngsters with learning problems, these are likely to be more numerous in disadvantaged areas. These problems are thought to be caused by experiential and other deficiencies and/or unfavorable school experiences. They vary in kind from emotional conflicts to lack of essential academic skills. Regardless of their nature, it is important to treat these problems early, with more concentrated attention than is possible in a regular classroom situation.

The second important objective in the initial design of this project was to provide the opportunity to discover individual pupil talents and interests that could serve as a basis to build positive feelings about self and ability to achieve in school. Educators generally believe that a positive self-image is essential if one is to reach the highest possible level of academic achievement. A low self-image is generally considered characteristic of disadvantaged pupils; this fact is seen as a hindrance to higher aspiration and accomplishment.

Both the preceding objectives may be viewed as a means of attaining the third goal originally included in the project proposal. This third objective is achievement in school consistent with the potential of each pupil. If learning problems are corrected and the self-image is raised to an adequate level, pupils should be thereby equipped to attain their optimum achievement level.

Finally, the fourth objective was the involvement of parents and community in the educational process, making school more meaningful to parents and pupils. By making parents more aware of their important role in the education of their children and by exposing each pupil to various enriching influences in the community, it was hoped that serious deficiencies could be offset. Parents of disadvantaged pupils are often believed to be rather disinterested in the education of their children, and the environmental limitation placed on the child's intellectual growth has been highlighted frequently in the literature.

Modifications

From its original proposal, the project was somewhat modified in the 1966-67 school year. To improve coherence among the various ESEA provisions for disadvantaged elementary school pupils, the services of four other projects were incorporated into the elementary project proposal for 1966-67. Saturday enrichment classes, organized under a separate grant in February, 1966, became one component of this project. The development of educational resource centers, originally a distinct project, continued in 1966-67 under Project 27, with most centers achieving full-scale operation about mid-year. Summer opportunities were also incorporated into this project in the form of a semi-nongraded Summer School Learning Camp. Finally, parent education, which was initially a separate project as well, was taken up into the larger projects at both the elementary and secondary levels.

The 1966-67 school year also brought sharper focus on the special needs of the most educationally deprived children. Although the incorporation of Saturday enrichment, parent education and resource center services brought secondary target pupils under the scope of this project, the vast majority of project resources were concentrated in the primary target schools. Pupils identified as most in need of remediation received greatest benefits, with primary attention to their growth in reading and arithmetic.

Project Narrative

Objectives

Three of the objectives originally identified as appropriate for this project were retained in the second year's proposal:

1. To identify and treat individual pupils with learning problems.
2. To discover individual pupils' talents and interests that can be a basis for building positive feelings about one's self and one's ability to achieve in a school.
3. To involve parents and community in the educational process, making school more meaningful to parents and pupils.

Because these objectives are somewhat general, and the scope of the project so broad, an attempt was made subsequently to refine the goals of the project according to the services included. A questionnaire intended to define service objectives was designed for professional personnel involved in the project. As a framework, the ten federally coded statements of objectives that had been included in one or more of the local project applications were listed on the first page of this questionnaire. Eight of these had been designated for the Elementary School Remediation and Enrichment project. Staff members were asked to classify under the coded objectives the more specific goals to which they might assign priority, qualifying the original statements in any manner they chose. The specific goals were to be those they considered pertinent to the particular service they performed within the project. After this classification and qualification of the original statements had been accomplished, respondents were to rank all of the objectives they considered relevant. A series of questions followed concerning the minimum improvement with which the respondent would be satisfied for one year and the most appropriate method of evaluating each objective.

This questionnaire was administered to the following seven groups of personnel in the target schools: principals, administrative aides, resource teachers, remedial teachers, extra-curricular teachers, Saturday enrichment personnel and resource center librarians.

The ranks assigned to these coded objectives were assigned weights ranging from 10 for a rank of 1 to 1 for a rank of 10. The mean weight of each objective was then determined for each group of respondents by dividing this total by the number of respondents within that group. These mean weights for each group are indicated in Table 1.

The results of this questionnaire show considerable agreement among the various classes of personnel involved in rendering services under Project 27. The two objectives that were not a part of the original project proposal (those concerned with drop-outs and physical health) were generally assigned low ratings. This suggests that the project personnel saw their goals in much the same light as the staff members that had drafted the original proposal. Within most of the classes of personnel there was definite agreement on the appropriateness of certain goals. Similarly, from one class of personnel to another this agreement was notable, although some reasonable variation occurred in terms of the different kinds of services rendered.

Table 1. Mean Weights* of Ten Service Objectives Based on Rankings by Seven Groups of Project Personnel.

Objectives	Principal (N=20)	Admin. Aides (N=10)	Resource Teachers (N=18)	Remedial Teachers (N-13)	Extra-Curricular Teachers (N= 7)	Saturday Enrichment Personnel (N=46)	Resource Center Librarian (N=22)	All Personnel (N=136)
To improve performance as measured by standardized achievement tests.	4.15	6.20	4.83	5.15	0.57	2.74	3.27	3.68
To improve classroom performance in reading beyond usual expectations.	7.15	6.10	6.17	8.54	1.71	3.04	7.25	5.42
To improve classroom performance in other skill areas beyond usual expectations.	5.55	4.10	5.67	2.08	3.57	6.07	5.93	5.26
To improve performance as measured by standardized tests of intellectual ability.	1.85	3.90	3.17	2.69	1.43	2.41	2.73	2.57
To improve the children's self-image	7.35	6.20	8.33	8.31	8.29	7.93	5.89	7.50
To raise the children's occupational and/or educational aspiration level.	5.20	6.70	5.94	3.23	7.57	7.83	6.80	6.49
To improve the children's average daily attendance.	1.75	2.80	4.17	2.62	2.86	1.46	1.07	2.08
To decrease the drop-out rate.	1.05	1.60	1.33	0.92	1.29	1.61	0.93	1.30
To improve the physical health of the children.	3.40	4.60	4.06	1.00	3.14	0.78	0.41	1.96
To improve the children's emotional and social stability and/or that of their families.	5.00	5.00	5.56	3.62	4.00	4.98	4.64	4.82

*Weight = 11 - rank

Four of the seven groups of respondents (principals, resource teacher, Saturday enrichment personnel and resource center librarians) agreed on the first five project objectives, although not in the same order. The specialized functions of the remedial teachers and extra-curricular teachers seemed to account for their inclusion of objectives that were not selected among the top five by the total group.

To summarize the results of the service objectives questionnaire, the five primary objectives of Project 27 as viewed by the professional personnel involved may be specified in terms of the goal to be attained, the minimum success criterion and the approach to evaluation as follows:

1. To attain any improvement in the self-image of project pupils as measured by special self-image tests and descriptive behavioral data.
2. To attain any improvement in the occupational and/or educational aspiraton level of pupils as measured by the judgment of school personnel and descriptive behavioral data.
3. To attain any improvement in classroom performance in reading as judged by school personnel.
4. To attain any improvement in the children's emotional and social stability and/or that of their families as measured by the judgment of school personnel and descriptive behavioral data.
5. To attain any improvement in classroom performance in skill areas other than reading as judged by school personnel and measured by special knowledge or skill tests.

Instructional and Service Activities

Services provided through Project 27 include:

1. General cultural enrichment
2. English language arts instruction
3. Reading instruction
4. Mathematics instruction
5. Music instruction
6. Science instruction
7. Social studies instruction

8. Teacher aides and other subprofessional help
9. Curriculum materials center service
10. Services and instructions for parents

Components

The components of the project are as follows:

1. Regular school program
2. After school program
3. Saturday enrichment classes
4. Summer school
5. Educational resource centers
6. Parent education

Co-ordinator's Log

Scope of Project. The Elementary School Remediation and Enrichment project has the largest scope of any ESEA activity in the Cincinnati schools. It is aimed primarily at those pupils in the 12 primary target public elementary schools (and their neighboring non-public elementary schools in the designated attendance districts) whose deprived experiential and cultural backgrounds have presented serious learning problems. Certain project services, however, especially those that focus on enrichment have been available to other pupils in these schools. In addition, limited services have been provided in those schools identified as secondary targets, i.e., schools with somewhat less incidence of deprivation.

The scope of the project was broadened in the 1966-67 school year through the incorporation of three components that had been separate projects in the first year of Education Act. Parent education, Saturday enrichment activities, and learning resource center services are generally available to a wider range of students than those that have been identified as most in need of intensive service. Nevertheless, the focal point of the project was growth in reading and arithmetic supported by enrichment experiences for those children specifically designated as project pupils. By making the entire school experience more relevant to life as seen by the disadvantaged pupil, the project was intended to help such a pupil to become more psychologically involved in the learning process.

Services provided in this project were supplemented by other ESEA and OEO projects that served these project children. The ESEA Health Services project, for example, was directed toward implementing the physical health of target children in grades 4, 7 and 10. The OEO Dental Health project provided services through the establishment of seven dental clinics. Such supportive services made it possible for pupils to devote more energy to school work and increase the chances of success of the motivational efforts of Project 27.

Personnel. With few modifications and additions, personnel that had been added to the staffs of target schools as a part of the 1965-66 projects were retained for the current school year. At the administrative level, 12 administrative aides were assigned to the staffs of primary target schools to implement the project. Under the direction of the school principals, aides were responsible for supervising, organizing and coordinating project services, both during and after the school day. In cooperation with the project coordinator, they ironed out difficulties in operational procedures, arranged for special activities such as field trips and auditorium programs, managed the allocations for new materials and equipment and made the necessary administrative arrangements for their optimal use. Communication was an important part of the duties of the administrative aides both in their own schools and as they attempted to share successful instructional techniques and uses of equipment with project personnel in other schools. Other responsibilities included helping with the evaluation and interpretation of project activities, training and supervising resident aides and volunteers and setting up special after-school activities.

In implementing the project goal of providing coordinated supportive services for disadvantaged pupils, the resource teacher played a prominent role. Twenty-two resource teachers with no homeroom responsibilities were used in the project. They worked directly with selected individuals and/or small groups of pupils with learning problems and sometimes helped regular staff members plan a more effective instructional program of remediation and enrichment. They were available for counseling, contacting supportive services, and holding pupil, parent or teacher conferences concerning the assigned children. Conducting after-school enrichment activities provided resource teachers with an additional opportunity to observe the project children in varied learning situations.

Since reading is vital to learning and since disadvantaged pupils very often have limited reading ability, 15 remedial reading teachers were employed under the project. These teachers helped to identify pupils with intensive reading problems; diagnosed, prescribed, and individualized special reading problems; conferred periodically with regular staff members to plan effective reading programs; and held conferences with parents and pupils regarding pupil progress and parental help. Experimentation with new techniques and materials designed to meet the special needs of the project children was fostered under the direction of the Department of Instruction. In order to provide enough adequately trained reading specialists, a 1966 summer workshop was offered jointly with the University of Cincinnati for university credit and required for those teachers assigned to remedial reading.

To increase the effectiveness of the above professional personnel, 58 full-time aides, parents drawn from the school communities, were assigned the primary function of interpreting the school and its educational objectives to the public. In addition, home visits, telephone calls, parent conferences and discussion groups enabled these aides to be liaison between the parents and the schools. Since these aides were residents of the school community, they were often able to relate to parents in such a way as to make the program of the school more meaningful. Working under the direction of the local school administration, the resident aides assisted the nurse in the follow-up of school health problems, worked with the librarian in the Educational Resource Center; and helped with pupil control in the school lunchroom, playground and halls. Often the aides helped to chaperone parties, programs and excursions, as well as to escort parents and children to dental and health clinics. Twenty child care aides, employed on a part-time basis, supervised pre-school children of those parents who were participants in the parent education discussion groups. Many first-time experiences were provided by the resident aides for the parents of the project children, such as social and welfare agency contacts, a tour of Cincinnati, and the use of library facilities. The local Parent-Teacher Associations have been motivated to adjust their program to the needs of the parents of disadvantaged children. As a result, parents tend to support school programs and are more actively involved in the area of volunteer service. Several resident aides have been stimulated to return to school for further study; still others were inspired to accept employment consistent with their newly developed skills.

Significant aspects of the project services aimed at enriching the school experience of project children were explored through after-school activities. One extra-curricular teacher was employed to co-ordinate these activities in each project school. Organizing and scheduling activities, recruiting and training volunteers, and ordering supplies were responsibilities of each extra-curricular teacher. A more effective enrichment program was found in those schools where resource teachers, as group leaders, used this opportunity to work with and observe project children in varied but relaxed learning situations.

An instrumental music teacher was assigned to enrich the regular music program during the school day and in the after-school enrichment program.

A librarian was employed for each target school as the resource centers were readied for operation. The construction and preparation of these centers required great expenditure of effort by the business department of the local school system. These centers have broadened the educational vistas of children, teachers and parents, by giving them access to books, periodicals, and multi-media materials placed where they are readily available. Librarians have reported the great enthusiasm with which the centers are being used.

The Saturday morning enrichment component was housed in eight centers, utilizing eight administrative aides and 48 classroom teachers. Specialists in math, engineering, physical and earth sciences were recruited as volunteers from local industries such as Procter and Gamble, General Electric and Taft Sanitary Engineering. Pupils were given an opportunity to work in small interest groups under the direct supervision of teachers and volunteers.

In order that the project staff could be free to make the best possible use of their professional skills, additional secretarial help was necessary to carry out the project. To those schools where such clerical assistance was needed, a part- or full-time secretary was added.

Of the aforementioned personnel, all were assigned to primary target schools except a librarian and a resident aide for each secondary target school. In six of these schools, where large enrollments warranted, an additional aide was assigned to assist with the library activities.

Equipment and Supplies. Since a substantial part of the budget of the preceding proposal had been spent on equipment, it was not necessary to include such expenditures in the present project. Additional books, programed materials and kits both for remediation and enrichment were purchased for the Educational Resource Centers with careful attention paid to the cultural and ethnic content.

The audio-visual equipment, purchased under the preceding proposal, was introduced to project staffs via demonstration and workshop periods by the supervisors in the Visual Aids Exchange. Cameras were used to record children's reactions in the course of field trips, in-class activities and after-school projects. These pictures served as a focal activity for language development. To supplement and reinforce language development, tape recorders, language masters and listening posts were utilized. Overhead projectors and transparency making copiers have promoted the preparation and use of teacher-made instructional aids. Filmstrip viewers and film loop projectors have greatly assisted in individualizing instruction. General meetings were held by supervisors in the Department of Instruction to acquaint teachers with the proper use of the kits and programed materials. As local school needs warranted, additional in-service meetings were conducted by project supervisors.

Regular School Year Services. Project services were aimed primarily at those pupils who were most educationally deprived. Pupils with serious learning problems were given special attention by resource or remedial reading teachers. Some pupils progressing at a normal rate were given increased enrichment experiences in the belief that the higher achiever can contribute to the growth of the underachiever. Non-public school pupils received remedial instruction at nearby public schools wherever possible; however, where pupil safety and building space were prohibitive, instruction was provided in the non-public facility by the project staff.

Resource teachers and regular classroom teachers made extensive use of excursions to introduce children to the wider community around them and to give them the background experiences not normally furnished by their homes but essential to the total academic development of children. Some of these excursions were neighborhood walking trips to areas within several blocks of the school, but which had not been visited by the pupils. Other trips were made by bus into the larger community to places such as supermarkets, downtown Cincinnati, museums, parks, farms, the Greater Cincinnati Airport, the Center of Science and Industry and various industrial firms, all of which seemed to have educational value to the ongoing classroom activities.

Diversified after-school activities contributed to enriching the background of project children. The principal focus of these activities was on the hobbies and interests of the pupils, thereby extending the scope of their interest, developing their natural talents and enhancing their self-concept.

Great enthusiasm was displayed for club activities such as math, sewing, art, French, athletics, music, school beautification, story hour, playwriting, crafts and pre-grade orientation. Such diversification motivated many children to be actively involved in each of the four weekdays of after-school program operation.

An extension of these interest groups was conducted on Saturdays for selected fifth- and sixth-grade pupils. This program provided enrichment instruction, excursions and other structured experiences in creative language, literature, mathematics, science, social studies, music and art. Volunteers, and other resource people, many of whom hold advanced degrees in their area of specialty, increased the opportunity for individualized instruction; contributed to relating subject matter to everyday living; provided specialized equipment for experiments and discussions; and fostered a non-book-oriented approach to instruction. The Saturday enrichment component, therefore, was designed to further the spark of awareness in educationally disadvantaged boys and girls, and to provide cultural experiences that might better prepare these children to accept the opportunities provided in our society. Those educational pursuits which help to develop talent and ability to think in depth as well as to awaken youngsters to the world outside their immediate neighborhoods were utilized by the teachers and volunteers.

Although the project proposal provided no psychological staff, the local school system provided additional psychological service time on a pilot basis in two of the primary target schools for six weeks prior to the close of the regular school year. The focus of this service was to allow selected resource teachers and psychologists time to diagnose, prescribe and follow the serious learning problems of project children. As a result of this short study, two psychologists were assigned to pursue this approach during the summer learning camp. Even though the study is in its infancy, many insights and implications for project in-service training for the next school year have become apparent.

Since most school buildings were already being used to capacity before the project began, at times it was difficult to find adequate space for the project activities. Conversion of space became an innovative task for each school administrator. In some schools the lack of space limited the scope of the instructional program.

Despite some difficulties, typical of an educational endeavor of this magnitude, in-roads have been made into the problems of educating the 3950 educationally disadvantaged children receiving direct services under the Elementary Remediation and Enrichment project. In addition, 6650 pupils were served in the Educational Resource Centers.

Summer School Learning Camp. During the summer of 1967 an extension of Project 27, known as the Summer School Learning Camp, provided experiences to maintain and extend the progress which had been made during the regular school year. A semi-nongraded organization, as opposed to the traditional organization by grade level, was explored.

Priority was given to those public and non-public project children who had received services under any of the ESEA projects during the regular school year. In all, 3500 children were enrolled in the summer camp.

The program was organized as a summer learning camp in which pupils were exposed to diversified forms of learning. Concentration of services was focused on the primary target schools through combination grades, adjusted class size, and the use of college aides. In secondary target schools, innovative use of teachers and student aides provided additional services. Remedial instruction in reading and arithmetic was given where most needed. Resident aides were assigned to work directly with project parents.

Curriculum bulletins were written by committees comprised of teachers, principals and supervisors. At each combination grade level a focal activity, a theme, and a camp song became the core around which the curriculum bulletin was written. Pre-orientation meetings and subsequent in-service meetings were held for all employees in the summer camp in order to assure maximum implementation of philosophy and program objectives.

Combination grades 1-2 spent one day in each of four weeks at local parks. A cooperative plan among the Cincinnati Public Schools, the Indian Hill Episcopal-Presbyterian Church, and the Indian Hill Armstrong Chapel was established, whereby children in combination grades 3-4 spent one day in each of five weeks in a day camp experience in the Indian Hill Village. This aspect of the program was coordinated by a program director at the Indian Hill Church with high school and adult volunteers recruited from the village by a program coordinator. Great enthusiasm was exhibited for this part of the program by children, teachers, volunteers and project leaders.

Combination grades 5-6 spent one day in each of four weeks exploring the Ohio River, its heritage and Cincinnati. These trips were under the direction of art-music teacher teams who created and produced culminating programs of reflected pupil interests and activities related to their summer experiences. These programs, the highlight of the summer activities, were held for parents and other interested members of the community in the courtyards of nearby housing projects, in parks or on the lawn of a private institution. Local governmental and private agencies gave extensive support in implementing the summer program.

In addition, instruction in nutrition, dental hygiene and physical fitness were essential aspects of this program. Follow-up dental care and physical health services were available. Community use of the resource centers was provided.

A sports camp program planned jointly by the Cincinnati Public Schools with the Cincinnati Recreation Commission was a day camp experience for primary target children. Instruction was given in sports such as miniature golf, tennis, archery, and bicycling. Transportation was provided by the Commission funded from local Community Action Commission allocations.

Project Evaluation

Procedures

Because of the vast scope of this project, many of the data collected in the elementary target schools for program evaluation* have been useful in this report.

Particularly meaningful are the individual pupil data assembled for samples of children receiving various degrees of service. Each second-, fourth-, and sixth-grade pupil who had received at least 26 hours of individual or small-group instruction from a remedial or resource teacher, plus one or more additional ESEA service, was identified. If 1966 achievement data were available, these pupils were designated for the high service, primary target sample. They were then matched by sex, by grade and, in grades 2 and 4, by reading achievement, with low service, primary target and no service, control groups. The low service groups included only pupils who had received no ESEA services other than resource center use and parent education. These pupils were also matched by school with the high service sample.

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* The complete program evaluation report is contained in Volume 3, Number 1, of the Journal of Instructional Research and Program Development.

These previously reported data, of course, will be related to the specific aspect of this project under consideration, and this will often involve looking at them in some other form than that of the program evaluation report. Results will be reported in three sections related to objectives, activities, and components.

The first section of the report will concern itself with the functional objectives of the project as identified by professional personnel. Each of these objectives will be examined in an attempt to assess the extent to which it has been achieved. Unfortunately, this part of the evaluation will be somewhat handicapped by lack of data. The objectives questionnaire was administered rather late in the school year so that there was no opportunity to collect certain kinds of information seen as desirable by the questionnaire respondents. This is especially true of descriptive behavioral information on the students. Also lacking are some baseline data on specific project pupils. The objectives section therefore, will rely principally on the results of the Teacher Survey, pupil grades and the results of self-image testing.

The second section of the report of results will examine certain instructional and service activities, with particular emphasis on achievement test results of subjects in the pupil sample. This will involve an examination of data used earlier for the program evaluation report from a different viewpoint. The focus in this report will be on achievement test gains of pupils receiving remedial reading and arithmetic instruction. A closer look will also be taken at the question of intensity of project service.

In the third section, three major project components not evaluated earlier will be discussed. These are the Saturday Enrichment program, the educational resource centers and the summer school learning camp. Because each of these represents a substantial service in terms of pupils served and expenditure of funds, rather thorough evaluation seems warranted. In effect, the third section will be made up of three smaller reports with the evaluation techniques used for each component described along with the results.

Results Related to Functional Objectives

Objective 1. To obtain any improvement in the self-image of project pupils as measured by special self-image tests and descriptive behavioral data. Although psychologists generally agree that a satisfying self-image is necessary for optimal functioning in any situation, they admit that reliable and valid measurement in this area is extremely difficult to achieve.

Parker* compares two methods of measuring self-concept, the self report and the teacher rating. From his study he comes to a belief that the observations of an outsider are a more valid approach to self-image measurement than self-report.

Interestingly, in identifying this objective, professional staff members indicated a confidence in tests of self-image, but in the cognitive areas under other objectives, they preferred teacher judgment as a basis for measurement. Unfortunately, descriptive behavioral data which might provide the basis for inferences about self-concept were not available in meaningful form for the 1966-67 school year.

Teacher judgments of pupil self-image were not obtained on an individual basis. The Teacher Survey, however, completed in all schools throughout the system, did include an item on pupil image of self, which allowed teachers to react in a general way to this important concept. By grouping schools into categories one is able to compare the ratings given this item by primary target teachers with those of teachers in other types of schools, as well as ratings for each of the last two years. In such comparison it is found that primary target teachers rated this item slightly higher in 1967 than in 1966. Primary target ratings vary only slightly from those given by secondary target teachers. There is, however, a rather large negative difference in the target school ratings for this item as compared to the ratings given by non-target school teachers.

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*Parker, James. "The Relationship of Self Report to Inferred Self Concept." Educational and Psychological Measurement. 26: 691-700; Autumn, 1966.

Such close inspection of a single survey item can give only a gross suggestion as to how teachers look at pupil self-image. Much more vital to project evaluation under this objective, is an assessment of the self-image of individual pupils served by the project. The local attempt to measure self-concept used two approaches. First, a self-report approach was employed in the Attitudes Toward Self and School or "Smiles" instrument at the primary level, and the What I Am Like test in the intermediate grades. Secondly all pupils were asked to draw a house, a tree and a person, and factors that had been identified through research as relevant to self-concept were used to develop a scoring technique. The complete results of this self-image measurement have been reported in the program evaluation report.

Because the emphasis shifted in 1966-67 to closer evaluation of changes in individual pupils, self-image measurement was confined to the specifically selected pupil sample plus a suburban sample from ten elementary schools of high economic advantagement. Unfortunately, self-image scores for these pupils in the preceding year were generally not available. Thus, it is impossible to derive valid comparisons between the 1966-67 and 1965-66 data. However, group comparisons according to type of school and degree of Education Act services are meaningful.

Table 2 shows the total means at each grade level for each of the groups under consideration. These are reported for the three instruments used in assessing self-image. The "Smiles" instrument, used at the second-grade level, consists of 18 items, each having two circles representing a smiling and a frowning face. The student is asked to blacken the nose of the picture that represents how he feels when the examiner reads each item. The total score for each group is the total number of smiling faces marked.

The drawings--house, tree and person--were scored on the basis of eight factors, each having a three-point value. These factors are: size of first person drawn, discrepancy of first drawing from the vertical position, detailing in drawings, detailing in face of first person, position on pages, degrading of drawings, sex of first person drawn, and distortion.

Table 2. Mean Raw Scores of Sample Pupils on Tests of Self-Image by Grade and Pupil Group.

	High Service Primary Target		Low Service Primary Target		No Service Controls		No Service Suburban	
	Mean	(N)	Mean	(N)	Mean	(N)	Mean	(N)
Grade 2								
"Smiles"	13.98	(89)	14.30	(82)	13.39	(96)	13.96	(306)
House-Tree-Person	17.22	(91)	17.26	(82)	17.26	(95)	18.00	(96)
Grade 4								
What I Am Like	114.41	(56)	115.59	(51)	115.83	(60)	116.01	(100)
House-Tree-Person	18.08	(60)	18.63	(51)	18.02	(65)	19.45	(89)
Grade 6								
What I Am Like	115.17	(42)	114.53	(45)	114.52	(80)	116.80	(100)
House-Tree-Person	18.65	(23)	19.59	(22)	19.22	(81)	20.04	(86)

The What I Am Like instrument consists of physical, social, and psychological subtests of ten items each. Pupils rated each of these items on a five-point scale so that the maximum score for an individual pupil is 150 points.

Comparisons of the various groups at each grade level show no significant differences. Nevertheless, there is a tendency for primary target school pupils receiving little service under the Education Act to score slightly higher than those pupils selected for intensive Education Act services.

If this indeed is a valid distinction, it is probably traceable to the selection of the most educationally deprived pupils for intensive service. It is understandable that these pupils might have a lower concept of themselves, particularly as related to the school setting.

Still more obvious is the tendency for suburban pupils to score slightly higher than both target and control pupils. The consistency of this pattern lends some confirmation to the finding in other research that the self-concept of disadvantaged children is lower than that of middle class children. The differences, however, were not statistically significant, so that this conclusion cannot be reached with any certainty on the basis of this year's study.

More important to the evaluation of project services is pupil change. Although change cannot be appraised at this time, the groups of pupils identified for the 1966-67 study will be tested again at the close of 1967-68. Only at such time will it be possible to look realistically at the effect that the project has on pupils' self-concept.

Objective 2. To attain any improvement in the occupational and/or educational aspiration level of pupils as measured by the judgment of school personnel and descriptive behavioral data. Teacher judgment of pupil aspiration level as reflected in the Teacher Survey appears to have remained stable in the primary target schools. The rating given this item by primary target teachers closely approximates the rating of self-image. While the aspiration level rating for primary target schools showed a change of only .01 from 1966 to 1967, the secondary target and control ratings increased .55 and .53, respectively. Thus, in terms of the total primary target school population, teacher judgment of aspiration level shows no improvement.

If one prefers to look at behavioral data in order to make inferences about pupil aspiration, only attendance data is available. The pattern here is one of consistently higher absence rates in 1966-67 both in target and non-target schools. When the attendance records of different groups of pupils are compared the same pattern exists. There is no indication that absence among pupils receiving a high degree of service was any less than for pupils in other categories.

A third reflector of aspiration level is responses to the Student Survey. This instrument was administered anonymously to target school and control school populations and subsequently repeated with the pupil sample. In this latter administration, the subjects signed their names to the survey. We are thus able to compare the responses to selected items of primary target pupils with and without significant Education Act services as well as the control school sample. These comparisons are made in Table 3. Because aspiration level and self-concept are closely related, some of these items may be more relevant to the preceding objective. They are reported here for simplicity.

Although there are some rather sizable differences in the percentages of affirmative responses for particular items, no consistent pattern seems to exist. On the college aspiration item, for example, control school second graders gave a more affirmative response than secondary target schools, but the reverse is true in grades four and six.

The total analysis of the anonymous administration of the Student Survey revealed some interesting contrasts between target schools and suburban schools. Pupils in suburban schools indicated more anxiety toward school and learning but a higher aspiration level. This finding appears consistent with what are commonly thought of as typical attitudes of the two groups.

As with the self-image, the real test of project success must depend upon reliable measures of change in pupils having the benefit of Education Act services. Because the 1965-66 evaluation depended on total school measurement, individual pupil data is not generally available. Thus, care-

Table 3. Percentages of Affirmative Response of Sample Pupils to Selected Student Survey Items by Grade.

	Grade 2			Grade 4			Grade 6		
	HSPT	LSPT	NSC	HSPT	LSPT	NSC	HSPT	LSPT	NSC
Item N=	110	81	71	66	60	67	93	88	87
9. Are you satisfied with the grades on your report card	75%	69%	67%	63%	43%	45%	42%	38%	52%
10. Do you worry about your schoolwork	72	68	62	77	88	57	84	78	72
11. Are you doing better in your schoolwork this year	87	89	91	83	72	73	72	73	76
16. Do you think you will graduate from high school	80	81	83	77	80	79	90	86	86
17. Do you hope to go to college	86	89	94	94	92	79	91	91	70
20. Do you think your teachers usually expect too much of you	45	46	53	46	56	31	46	39	30
21. Do your teachers think you are doing well in school work	86	89	75	73	65	63	55	57	66
22. Do your parents think you are doing well in school work	85	89	89	83	75	55	66	72	67
23. Do you think you could do well in any school subject if you studied hard enough	91	96	90	95	95	91	96	95	93
24. Are your lowest grades usually your teacher's fault	41	28	15	11	20	12	14	22	9
25. Do you think you could do well in any kind of job you choose	88	91	72	73	80	64	78	81	76

ful analysis of the effect of Title I services on specific children must wait until the end of the school year.

Objective 3. To attain any improvement in classroom performance in reading as judged by school personnel. In assigning marks to pupils to represent the quality of their school performance, teachers make judgments on various bases. Some teachers are inclined to evaluate performance in terms of a fixed standard, irrespective of pupils' ability. Others modify their judgments to a greater or lesser extent according to what they believe to be the intellectual capabilities of each pupil.

With these variations in mind, one might look at teacher judgments reflected in reading marks. The Teacher Survey suggests that primary target teachers rate the general achievement of pupils somewhat lower than teachers in other schools. Further, their rating of pupil achievement declined rather appreciably for the 1966-67 school year. If these ratings are valid indicators of how teachers regard pupil achievement, the lower ratings might be a function of either actually inferior performance or a higher level of expectation. In other words, the fact that teachers believe that pupil achievement is lower does not necessarily mean that this is so.

The reading marks of pupils receiving significant project services can be compared with those of other primary target children and of the control sample. Using the data collected for program evaluation, one finds that the high service pupils in grades two and four showed a slight increase in reading marks, while other primary target children remained basically the same and the control sample declined. At the sixth grade, the reading marks of all groups were lower for the 1966-67 school year. These differences, however, are all too small to be significant, so that the only meaning that might be derived comes from the relative consistency of the pattern.

The evidence related to this third objective, then, offers no definite conclusion. There seems to be a hint that teachers see second- and fourth-grade pupils receiving significant services as reading somewhat better, but this inference must be tentative. By contrast, teacher appraisal of general pupil achievement in primary target schools appears lower for the 1966-67 school year.

Objective 4. To attain any improvement in the childrens' emotional and social stability and/or that of their families as measured by the judgment of school personnel and descriptive behavioral data. To ascertain the effect of pupil services and parent education efforts on emotional-social stability is extremely difficult. Ideally, a large amount of behavioral data ought to be accumulated in such areas as changes of residence, arrests, and school truancy and disciplinary measures. Unfortunately, such information is not available for the specific children receiving services under this project.

Thus, the evaluation for this objective must rely on judgment of school personnel as reflected by the Teacher Survey. Items on pupil discipline and behavior standards as well as those concerned with parent relations with the school seem relevant. Table 4 summarizes teacher responses to these items.

Table 4. Mean Ratings by Elementary Teachers of Selected Teacher Survey Items by Type of School.

	Primary Target		Secondary Target		Control	
	1966	1967	1966	1967	1966	1967
Item N=	337	391	495	611	65	60
Parent participation in school	2.93	2.95	2.54	2.84	3.65	4.18
Parent involvement	3.23	3.40	2.83	3.38	3.17	4.36
Supportive attitude of parents	3.71	3.44	3.28	3.47	3.84	3.90
Behavior standards of pupils	4.05	3.76	3.69	3.79	3.98	4.38
Pupil discipline	3.89	4.00	3.68	3.94	3.85	4.68

For both the pupils and parents the picture presented by the Teacher Survey is somewhat inconsistent. Target school teachers rate items on parent involvement and participation lower than teachers in other schools. The primary target rating for pupil behavior standards is lower than the city-wide average and shows a decline in 1967. The pupil discipline rating, on the other hand, rose in 1967 and compares favorably with the city average.

The jump from teacher judgments of such pupil and parent characteristics to conclusions about the effects of project services on emotional and social stability involves tenuous inference. The validity of these judgments is unknown. If there were clear evidence of significant gains or losses in any of the ratings, one might infer that these judgments were valid reflectors of change in pupil or parent stability. Without such evidence, however, this question must remain unresolved.

Objective 5. To attain any improvement in classroom performance in skill areas other than reading as judged by school personnel and measured by special knowledge and skill tests. As noted under Objective 3, Teacher Survey results suggest that primary target teachers believed the overall achievement level of pupils to be lower in 1966-67 than in the preceding school year. The question posed by the fifth project objective is whether pupils receiving intensive services are exceptions to this trend.

This question can be answered by comparing marks of project pupils with control samples from the same schools and from similar schools. This was the approach used with the pupil sample in program evaluation. A second method of answering the question would be through comparison of achievement test data. Because these comparisons will be more meaningful when refined in terms of intensity with which pupils received specific instructional services, the examination of achievement test data will be reserved for the next section of this report.

Data collected on the pupil sample included marks given by teachers in Arithmetic (grades 2, 4 and 6); Language (grade 2); and English (grade 6). The marks in these areas of pupils in the high service sample showed a general decline from 1965-66 to 1966-67. Only in second-grade Arithmetic was the mean higher for the more recent year. Sixth-grade Arithmetic remained the same, while fourth-grade declined. Language and English grades, at the second and sixth grade respectively, were lower for high service pupils in 1966-67, while the marks for control pupils generally tended to increase in Language and English, and decline in Arithmetic.

The picture presented by school marks as indices of teacher judgment of achievement is basically negative. There is certainly no evidence of a positive effect stemming from intensive Education Act service. As noted earlier, there is no way to appraise the extent to which these teacher judgments are valid. Pupils may in fact be achieving less, or teachers may be raising their standards in the expectation that positive results should be forthcoming from the remedial instruction offered by the project.

Results Related to Instructional and Service Activities

From the beginning of this project, the primary focus of its activities has been the early remediation of learning difficulties in the most educationally disadvantaged children. Such pupils have been selected for intensive small group remedial instruction on the basis of past performance. In the important area of reading skills, this service is provided by specially trained remedial reading teachers. For language arts, arithmetic, social studies, and science instruction, there are resource teachers.

Because this instruction often is seen as the very core of the project, it is important that its effectiveness be carefully evaluated. Thus, even in the large scale program evaluation, the assessment of Title I impact on specific pupils centered on those receiving instruction from remedial and resource teachers. The high service primary target pupil sample in grades 2, 4, 6, 7 and 10 was selected from the population of pupils receiving this service plus one other under ESEA.

Comparison of this high service group with other groups of pupils in primary target, secondary target and control schools showed no significant difference in any area. Data concerning self-concept and pupil marks have already been presented in this report. However, in identifying functional objectives, project personnel appeared skeptical of standardized tests of achievement. These tests were not identified as preferred means of evaluating any of the project goals.

Nevertheless, it seems appropriate to review the achievement data of the pupil sample in attempting to evaluate the effectiveness of specific areas of remedial instruction. Because of the focus of this section of the report, the data have been examined more carefully than in program evaluation in terms of the specific instructional areas and the intensity of service received.

For each instructional activity, two kinds of comparisons are made. First, at each grade level the mean achievement test scores of all sample pupils in the high service primary target group who received 76 or more hours of remedial instruction are compared with the mean scores of the low service primary target group. This comparison amounts to assessing the achievement gains brought about by remedial instruction in the light of gains made by other primary target pupils who received neither remedial instruction nor any other type of individual service.

Secondly, irrespective of grade level, mean achievement scores are computed for all high service primary target pupils participating in remedial instruction in specific instruction areas. These means may also be compared to the means of the low service primary target group since the latter pupils received nothing significant in the way of individual service. This comparison has the advantage of including in the treatment group only those pupils who were actually exposed to specialized instruction in a given subject.

The complete schedule of both pre and post testing is reported in the program evaluation study. For current purposes it suffices to point out that the pre-tests were administered to grades 2 and 4 in October, 1966, and to grade 6 in May, 1966, when these pupils were fifth graders. The post-tests took place in May, 1967, for grades 2 and 4, and in February, 1967, for grade 6.

English Language Arts Instruction. Tables 5 and 6 show the mean grade scores made by various groups on the Stanford subtests related to language arts instruction. Here, as in the other tables in this section, only pupils with achievement data for both years have been included. Table 5 contains no results for grade 4 since the pre-test at this grade level did not include spelling or language.

From Table 5 it is obvious that pupils receiving no significant Title I services had higher scores on both pre and post tests, as well as larger gains than the high intensity pupils.

Table 5. Mean Stanford Achievement Grade Scores of Sample Pupils on Language Arts Subtests by Pupil Group and Grade.

	Grade 2				Grade 6			
	N	1966	1967	Months of Gain	N	1966	1967	Months of Gain
Spelling								
High Intensity	42	1.3	2.1	8	29	3.9	4.2	3
Low Service	50	1.3	2.2	9	47	4.6	5.1	5
Language								
High Intensity	82	1.4	1.9	5	30	3.1	3.5	4
Low Service	89	1.5	2.1	6	45	3.6	4.1	5

The results in Table 5 also confirm the tendency noted in other comparisons for primary target pupils to gain about five to seven months of achievement in the course of the school year. Thus, both high intensity and low service pupils appear some six months below norm for grade 2 and about twenty months below norm for grade 6. In this regard it must be remembered that the norming population for the Stanford tests was somewhat above average in intellectual ability, so that the norms should not be interpreted as representative of even an average population. The extent to which most disadvantaged children would fall below these norms cannot be determined.

In Table 6 the mean grade scores on the Spelling and Language subtests are reported for those sample pupils who received special instruction in language arts under Title I. These scores have been combined across grade levels so that direct comparison with the data in Table 5 is difficult. It will be noted, however, that the gains made by these pupils on the Spelling subtest are larger than any of the changes reported in Table 5. The gain in Language achievement also appears larger than that suggested by the data in Table 5. Although no tests were made to determine significance of difference, these larger gains seem to offer some hope that intensive small group language arts instruction is having a beneficial effect on achievement in spelling and language usage.

Table 6. Mean Stanford Achievement Grade Scores of Sample Pupils Receiving Remedial Language Arts Instruction, by Year and Subtest.

	Spelling (N=22)	Language (N=23)
1966	1.6	1.8
1967	2.6	2.5
Months of Gain	10	7

Remedial Reading Instruction. The data reported in Tables 7 and 8 reflect results of the Word Meaning and Paragraph Meaning subtests for the same kinds of pupil groups as included in the above section. In Table 7 the results tend to follow the same pattern as for the language area. In every case but one (fourth-grade Paragraph Meaning) the means are higher and the gains larger for the low service pupils than for pupils with high intensity remedial instruction. Although most of the differences in change scores are small, this is not true for the sixth grade paragraph meaning subtest. Here the high intensity pupils showed an average of only one month's gain while the low service pupils gained almost nine months.

Table 7. Mean Stanford Achievement Grade Scores of Sample Pupils on Reading Subtests by Pupil Group and Grade.

	Grade 2				Grade 4				Grade 6			
	N	1966	1967	Months of Gain	N	1966	1967	Months of Gain	N	1966	1967	Months of Gain
Word Meaning												
High Intensity	83	1.3	1.9	6	60	2.5	3.1	6	36	3.4	3.9	5
Low Service	86	1.4	2.1	7	56	2.6	3.3	7	49	4.0	4.8	8
Para. Meaning												
High Intensity	82	1.5	1.9	4	62	2.2	2.8	6	36	3.9	4.0	1
Low Service	86	1.6	2.1	5	57	2.5	3.0	5	49	3.8	4.7	9

The data in Table 8 fail to provide evidence that separating those pupils with remedial reading instruction gives a different result than that for the total group. On the Word Meaning subtest the gains made by pupils with remedial reading average five months; Paragraph Meaning gains average six months. This is fairly consistent with the changes reflected in Table 7. In a word, therefore, the achievement test data collected on the pupil sample offers no evidence that remedial reading instruction improved the performance of pupils on standardized reading tests.

Table 8. Mean Stanford Achievement Grade Scores of Sample Pupils Receiving Remedial Reading Instruction by Year and Subtest.

	Word Meaning (N=178)	Paragraph Meaning (N=179)
1966	2.2	2.1
1967	2.7	2.7
Months of Gain	5	6

Remedial Arithmetic Instruction. Data for the same kinds of comparisons related to arithmetic are provided by Tables 9 and 10. In Table 9 at the second-grade level the results of the Arithmetic test are listed as Arithmetic Concepts since test content is oriented in this direction.

The comparison of high intensity and low service pupils on arithmetic subtests suggests the same pattern as for previous subject areas. Again, low service pupils start and finish with higher mean scores and tend to make greater gains from pre- to post-test.

Similarly, when the pupils receiving remedial arithmetic instruction are identified as a separate group their mean scores on the computation and concepts subtests fail to present a favorable picture. The difference between pre and post results in computation is still six months, while the concepts test shows only about four months' gain. This latter result, as well as the lower means for this test, must be interpreted in the light of the inclusion of grade 2, which was not included under Arithmetic Computation.

Table 9. Mean Stanford Achievement Grade Scores of Sample Pupils on Arithmetic Subtests by Pupil Group and Grade.

	Grade 2				Grade 4				Grade 6			
	N	1966	1967	Months of Gain	N	1966	1967	Months of Gain	N	1966	1967	Months of Gain
Arith. Computation												
High Intensity					60	2.8	3.5	7	35	4.1	4.6	5
Low Service					55	2.9	3.7	8	41	4.1	4.6	5
Arith. Concepts												
High Intensity	81	1.4	1.9	5	61	2.5	3.2	7	35	4.2	4.3	1
Low Service	91	1.6	2.1	5	55	2.7	3.5	8	47	4.3	4.9	6

Table 10. Mean Stanford Achievement Grade Scores of Sample Pupils Receiving Remedial Arithmetic Instruction by Year and Subtest.

	Arithmetic Computation N= 25	Arithmetic Concepts N= 45
1966	3.3	2.4
1967	3.9	2.8
Months of Gain	6	4

In summary, then, it might be generalized that a closer look at achievement test results collected on sample pupils in primary target schools gives little indication that specialized remedial instruction resulted in higher achievement. Although there is a suggestion of beneficial effects in the area of language arts instruction, reading and arithmetic, which are the primary emphasis of the project, fail to produce a measureable difference.

Results Related to Components

1. Saturday Enrichment Classes.

The Saturday Enrichment program was conducted as part of the Elementary School Remediation and Enrichment project in eight target area centers. For selected fifth- and sixth-grade pupils, this program provided enrichment instruction and experience in creative language, literature, mathematics, science, social studies, music and art. Two terms were held: October 22 through December 17, and January 14 through March 4. Eight Saturday sessions of three hours each were included in each term.

Two locally designed questionnaires, one for teachers and one for pupils, were used to obtain judgments of the program.

Teacher Judgment. Teachers were asked to rate nine characteristics of this component on a scale from one (poor) to five (excellent). The results of this rating scale are reported in Table 11. Forty-two teachers (or coordinators) gave an overall mean rating of 4.26, indicating a strongly positive feeling about the program. Clearly, teachers believed that Saturday classes have enough value to warrant their continuation. They judged the most worthwhile factors of the program to be the services of the volunteers and the enrichment excursions.

That these were seen as key virtues is substantiated by teachers' responses to an open-end question on "the chief strengths of the program." Fifteen respondents mentioned the volunteers or other "resource people," while ten specified the enrichment value of the excursions. Only two other advantages were cited by five or more teachers: flexibility (ten responses) and small class size (nine responses).

Table 11. Mean Ratings of Nine Characteristics by Saturday Enrichment Staff Members.

Item	Mean
Importance of continuing the program	4.74
Helpfulness of volunteers	4.58
Value of excursions	4.52
Contribution of the program in providing cultural contacts	4.38
Contribution of the program in providing necessary experiential background	4.36
Overall effectiveness of the program	4.24
Contribution of the program toward educational and economic improvement	4.17
Value of assemblies	3.62
Contribution of the program to pupil understanding of the community	3.40

Although teachers considered the excursions valuable, they evidently felt that the trips contributed relatively less to pupils' understanding of the community. This, strikingly, is the lowest rated of the nine program characteristics. Evidently, teachers felt that other worthwhile gains ensued.

Assemblies also were rated lower than other aspects of the program. This is interesting in that no teacher specified the assembly programs as either one of the "chief weaknesses" or as a source of "major problems" in the open-end questions. Rather, the single dominant response of these two items related to the inclusion of some disinterested or under-achieving pupils in classes and to the unsatisfactory behavior and attendance of these class members. Besides this, only the practice of splitting classes for excursions was mentioned as a weakness or problem source by five or more respondents.

The rating for "overall effectiveness of the program" is consistent with the mean for all nine items. When one compares the rating for overall effectiveness with that for importance of continuing the program, however, it seems that teachers believed that further experience would improve the program toward realization of its optimum value.

The beneficial outcomes that teachers saw in the Saturday experiences are reflected in their answers to the question, "What do you feel is the most convincing evidence that the Saturday Enrichment program has been successful in meeting its objectives?" The majority of responses to this question mentioned pupil attitudinal characteristics such as interest or enthusiasm. Several more concrete factors were specified, but only pupil attendance at the Saturday classes was mentioned by five or more teachers.

Pupil Judgment. In addition to the reactions of professional staff members, pupil judgments of the Saturday program were considered important. Pupil participants were asked to indicate goals other than improved school work that they hoped to achieve through the Saturday classes. They were then asked to judge the extent to which they had reached these goals. Subsequently, they judged the contribution of various parts of the program to improvement in school work and the attainment of their other goals. Two other items concerned the carry-over of the Saturday experience into other aspects of their lives.

Also included on the pupil questionnaire were several other open-end questions aimed chiefly at identifying values and impressions. As goals other than improved school work, most pupils listed objectives that were closely related. For example, to gain more knowledge or more skill and to learn to express themselves better were mentioned with some frequency. Often the participants said the program was not what they had expected it to be like and indicated satisfaction with this discovery. They indicated that the classes were beneficial in helping them improve their grades and understand their subjects better.

Field trips seemed to be most remembered of the experiences offered in the program apart from regular class routine. They were also the best liked of the program's features. Interestingly, pupils expressed some degree of dislike for trips and assemblies that did not seem related to the subjects they were taking. A number of pupils indicated that they had expected the program to be easy, but were having to work harder than they thought.

Quantifiable results indicate a very favorable judgment by pupils. Of 498 respondents, 217 (43.8 per cent) said they had reached their goals to a far greater extent than they had expected. Another 32.7 per cent marked "A little more than I expected," and 15.5 per cent marked "About as much as I expected." Thus, only 8.4 per cent (6.2 per cent "a little less" and 2.2 per cent "far less" than expected) could be considered dissatisfied. To complete the picture, one might add to the group who indicated failure to realize their expectations, those who withdrew before completing the program.

Of those pupils indicating participation in various services, Table 12 shows the percentages marking each alternative concerning the contribution of each service to better school work and attainment of other goals. Among the subject offerings, Mathematics was judged most helpful in both areas, with 75.5 per cent reporting that it helped them "very much" in school work and 73.7 per cent that it was very helpful in achieving other goals. Science and Social Studies were seen as more helpful than Literature and Creative Language. The percentages who saw no help from Literature are appreciably higher than for other subjects. Only Creative Language was seen as helping pupils toward other goals to a greater extent than toward improved school work.

The girls' grooming program was judged most favorably of the assemblies. As with the subject offerings, pupils did not seem to have distinguished sharply between the contribution toward improved school work and that toward other goals. There is a hint, however, that the program on France was more valued for its school work contribution. The String Trio and Dance Troupe assembly was the least well received.

Table 12. Percentages of Pupils Indicating Each of Three Levels of Helpfulness of Saturday Enrichment Services Toward Improved School Work and Attainment of Other Goals.

	N*	Improved School Work			Other Goals		
		Very Much	A Little	Not At All	Very Much	A Little	Not At All
Subject Offerings							
Creative Language	214	58.9	37.9	3.2	63.9	30.6	5.5
Science	291	70.8	27.9	1.3	67.2	29.8	3.0
Mathematics	216	74.5	21.8	3.7	73.7	21.4	4.9
Social Studies	137	69.3	27.0	3.7	65.9	30.2	3.9
Literature	87	59.8	28.7	11.5	56.6	31.3	12.1
Assemblies							
String Trio and Dance Troupe	352	40.4	35.2	24.4	36.2	38.6	25.2
Program on France	183	54.1	36.1	9.8	45.0	39.6	15.4
Dog Show	162	56.2	27.2	16.6	53.7	25.6	20.7
Grooming for Girls	221	69.7	20.8	9.5	66.3	21.0	12.7
Field Trips							
Art Museum	364	55.8	32.7	11.5	53.9	29.6	16.5
Churches	363	54.8	32.8	12.4	54.0	32.1	13.9
Dance Workshop	333	32.4	38.8	28.8	31.4	39.8	28.8

*N's are total numbers indicating participation in the improved school work question.

Similarly, the Dance Workshop was judged lowest among the three regular field trips or fine arts excursions. This is the only service for which the "A little" responses exceed the "Very much." The Art Museum trip was judged most helpful. Pupils also judged the value of several locally arranged trips.

Responses concerning the carry-over of the Saturday program are shown in Table 13. From these results one might generalize that pupils did talk about their Saturday experiences through the week, particularly at home. The fact that they reported discussing them more frequently with friends than in their regular classes suggests a need for increased emphasis on enrichment experiences and decreased stress on instructional activities.

Table 13. Percentages of Pupils Marking Each of Five Levels of Frequency for Four Questions Related to Program Carry-Over.

HOW OFTEN DID YOU:	TALK ABOUT YOUR SATURDAY PROGRAM ON THE OTHER DAYS OF THE WEEK:			WORK ON PROJECTS AT HOME
	At Home (N=332)	With Friends (N=332)	In Regular Class (N=317)	(N=333)
More than twice a week	46.1%	28.9%	26.2%	15.3%
About twice a week	22.9	28.0	24.3	16.8
About once a week	19.3	22.6	26.5	16.8
Less than once a week	6.6	12.4	9.5	13.5
Never	5.1	8.1	13.1	37.6

An attempt was also made to assess directly the effect of the classes on pupil achievement, self-image and attendance by using data collected on the program evaluation pupil sample. Unfortunately, though, the number of these pupils who had participated in the Saturday program was too small to be meaningful.

2. Summer School Learning Camp

In planning the program of summer services for target school elementary pupils, an effort was made to adapt the instructional and service activities included in this project extension to the interests and needs of the children. The entire summer offering was looked upon as an opportunity to introduce innovative forms of remedial and enrichment activities.

Pupil Interests. As a first attempt to decide what to include in the summer learning camp, a Pupil Inventory Survey was administered in primary and secondary target elementary schools. This was an open-end questionnaire and gave pupils an opportunity to specify what kinds of classroom and outside activities they would prefer, what field trips they would like to take, and what kinds of programs they would want introduced in classrooms and assemblies. Pupil responses to these questions were categorized, and tallies were made of the specific forms of activities, trips and programs. In rank order by frequency of reply, the following items were mentioned most often: reading, arithmetic, games, writing, art, gym, drawing or making pictures, spelling, painting and science.

Responses to the other questions on the survey indicated that pupils' preferences for trips and programs were as follows:

Trips	Programs or Visitors
Zoo	Movies
Parks	Parents
Coney Island	Policeman
Circus	Ball Player
Museums	Fireman

These preferences of target school children were taken into account as the format of the summer program was planned. A very key part of the offerings was a series of field trips and day camp experiences. In addition, flexibility was maintained in the regular classroom situation, so that the teachers meeting with their semi-nongraded classroom groups could most effectively attend to individual pupil needs.

Pupil Opinion. Because the aims of the summer program were so individualized, the evaluation of the benefits derived by pupil participants is somewhat more difficult. Although remediation in basic skills was considered important, the enrichment gains of broader interests and improved attitudes were also vital overall objectives. For this reason, pupils were asked directly to appraise the summer program in terms of benefits received.

Table 14 shows the responses of a twenty per cent sample of elementary school summer pupils to five items included on the Pupil Opinion of Summer Program survey. The high percentages of favorable responses suggest that pupils believed the program very beneficial. Seventy-three per cent of the sample judged the summer program very worthwhile, while another 24 per cent believed that they had derived some benefit. Of pupils who had attended the summer program in the preceding year, the majority (58 per cent) ranked this year's program "very much better."

Table 14. Responses of a 20 Per Cent Sample of Summer School Pupils to Quantifiable Items on the Pupil Opinion of Summer Program Survey.

(N=415) Question	Response	Per Cent
How worthwhile was your summer school experience?	Very Much	73%
	A little	24
	Not at all	3
Were you in summer school last year?	Yes	41
	No	59
How would you rate the value of this year's program in comparison to last?	Very much better	58
	A little better	16
	About as good	18
	A little worse	4
	Much worse	4
How many times were you absent this summer?	None	30
	Once or twice	42
	3 to 5 times	19
	more than 5	9
How do you feel about going back to school in September?	Eager	45
	Worried	11
	Unhappy	16
	Neutral	28

Pupils' replies concerning frequency of absence suggest that their attendance was regular enough to reflect a high degree of interest. Actual attendance data reported by the summer school staff substantiates this judgment.

The final question in Table 14 concerns the feeling of pupils as they look ahead to the beginning of a new school year. Forty-five per cent of the sample responses indicated eagerness to return to school in September, and another 28 per cent said they were neutral.

Pupil Achievement. This high degree of favorable response on the part of pupils suggests that the distinctive nature of the summer program was highly appealing to those who participated. In view of this the summer offerings hold promise of improving pupil attitudes toward school and raising the level of their achievement to a significant extent. Although more emphasis was placed on the enrichment activities than in the traditional summer program, the basic skills of reading and arithmetic also received considerable attention.

It was decided to measure changes in reading and arithmetic achievement from the regular Education Act testing time in May, 1967, to the time of return to school. A special summer post-testing was scheduled for October in schools selected as representative. Because grades 2 and 4 had been included in the spring tests, the post-tests were administered to pupils in grades 3 and 5. Each pupil indicated on his answer sheet whether or not he had attended the summer program. All of the pupils in these schools for whom data from both tests were available were then included in the comparison of achievement gains made by summer and non-summer groups. The mean grade scores by grade, subtest and pupil group are reported in Table 15.

The results do not confirm the hypothesis. There is virtually no evidence that would permit any inference of improvement in reading or arithmetic resulting from summer school participation. In the comparison of the total 138 summer participants with 354 non-summer pupils, only two of the seven subtest gains favored the summer pupils. Both of these are for arithmetic at the fifth-grade level. These two differences were tested by an analysis of co-variance and found non-significant.

When the scores of primary target pupils are separated from the secondary target scores, the picture changes a little. Only the Word Reading-Word Meaning comparison for third-grade pupils favors the primary target

Table 15. Mean Stanford Achievement Grade Scores, May and October, 1967, by Grade, Subtest and Pupil Group.

	PRIMARY TARGET						SECONDARY TARGET						TOTAL					
	Summer			Non-Summer			Summer			Non-Summer			Summer			Non-Summer		
	N= 72			N= 84			N= 66			N=270			N=138			N=354		
	May	Oct.	Gain	May	Oct.	Gain	May	Oct.	Gain	May	Oct.	Gain	May	Oct.	Gain	May	Oct.	Gain
Grade 2-3																		
Word Reading- Word Meaning	2.0	2.1	.1	2.5	2.5	.0	2.1	2.2	.1	2.2	2.3	.1	2.1	2.1	.0	2.2	2.4	.2
Paragraph Meaning	2.1	2.0	-.1	2.4	2.4	.0	2.1	2.1	.0	2.3	2.3	.0	2.1	2.0	-.1	2.3	2.3	.0
Arithmetic- Arithmetic Concepts	2.1	2.0	-.1	2.5	2.4	-.1	2.1	2.0	-.1	2.2	2.3	.1	2.1	2.0	-.1	2.3	2.3	.0
Grade 4-5																		
Word Meaning	3.5	3.7	.2	3.7	4.1	.4	3.5	3.6	.1	3.6	3.8	.2	3.5	3.6	.1	3.6	3.8	.2
Paragraph Meaning	4.7	5.2	.5	4.9	5.4	.5	4.2	4.7	.5	4.7	5.2	.5	4.4	4.9	.5	4.7	5.2	.5
Arithmetic Computation	3.6	3.7	.1	3.7	3.8	.1	3.5	3.6	.1	3.8	3.8	.0	3.5	3.7	.2	3.8	3.8	.0
Arithmetic Concepts	3.3	3.5	.2	3.3	3.5	.2	3.2	3.3	.1	3.5	3.6	.1	3.3	3.5	.2	3.5	3.6	.1

summer group over the non-summer. At fifth grade there is a larger difference in favor of the non-summer pupils on this subtest. In secondary target schools, on the other hand, only fifth-grade Arithmetic Computation shows a larger gain for summer pupils than for non-summer.

Very surprising is the consistently large gain made by all fifth-grade groups on the Paragraph Meaning subtest. Each of the four pupil groups showed a mean gain of five months. This is far more improvement than in any other area, and, added to the higher May scores, it brings three of the four groups up to grade level. The reason for this sizable gain across all groups is unknown.

There can be little doubt, then, that the attempt to use an innovative approach to enriching the experiences of target school pupils in the summer met with their approval and stimulated considerable enthusiasm. Unfortunately, however, there is no evidence that allows one to conclude that the program was substantially beneficial in terms of pupil achievement.

3. Educational Resource Centers

The development of educational resource centers in Cincinnati's primary and secondary target schools was begun as a separate Education Act project near the end of the 1965-66 school year. Improvements were planned for existing libraries, and new centers were designed for the other Title I schools. Teachers interested in working in the resource centers were given library science training under the In-Service Training project. Because of the time involved in remodeling facilities, preparing staff, and obtaining and cataloging materials, many of the centers were unable to begin operation until after mid-year of the 1966-67 school year. Thus, the first year's report of the project was more descriptive than evaluative.

In the 1966-67 school year the continued development and operation of the centers were incorporated in the Elementary Remediation and Enrichment project. The resource centers supported other project services in remediating academic difficulties and enriching the lives of target pupils.

As the facilities, books, and learning materials became available to children and teachers, means of appraising their effectiveness were sought. Because the services of the centers are directed largely toward the attainment of the same goals as other project components, their effects are generally indistinguishable from those of the other services. Thus the evaluation must be concerned principally with the extent of their use and their success in advancing pupil knowledge of library skills.

Extent of Use. Utilization data are maintained routinely by the librarians in the resource centers. Table 16 shows the circulation totals for categories of books and learning materials in primary and secondary target schools. Resource centers in primary target (PT) schools reported circulation of 113,398 books, an average of 14.94 per child in Average Daily Membership. These figures are exclusive of one school in which the center was not opened until the end of the 1966-67 school year and a special school for which the book collection was not received. In secondary target (ST) schools, 18 of 20 centers were in operation in 1966-67. These centers reported a total book circulation of 156,876, a ratio of 11.50 books per pupil in Average Daily Membership.

Audio-visual materials also were used more in PT than in ST schools. Despite the fact that there were more ST resource centers, PT schools had a greater circulation total for filmstrips. ST schools circulated more programed learning materials, but the average per school in this category is approximately the same for PT and ST.

A look at the separate data reported by each center reveals much diversity in all categories. Total book circulation figures for example, range from 3,320 to 32,259, and per-pupil ratios from 3.61 to 101.44.

Table 16. Circulation Totals Reported by Resource Centers by Category of Material and Type of School.

	PT	ST	TOTAL
Number of Resource Centers	11	18	29
Average Daily Membership	7,744	13,646	21,390
Book Circulation			
Easy	46,441	64,023	110,464
Fiction	19,221	33,405	52,626
Non-Fiction	47,736	59,448	107,184
Total	113,398	156,876	270,274
Books Circulated per Pupil	14.64	11.50	12.64
Audio-Visual Materials Circulation			
Filmstrips	5,139	4,550	9,689
Others	1,629	11,705	3,334
Total	6,768	6,255	13,023
Programed Learning Materials Circulation	1,075	1,705	2,780

Some of this difference is attributable to the variation in the time at which the centers opened. Although there seems to be little difference in this regard in the total comparison of PT versus ST, the individual school data are, of course, affected markedly. But even among centers operating all year there are great differences in circulation figures.

Also pertinent to the question of circulation is a concern that has been raised with some frequency in evaluation meetings with staff personnel of the local parochial schools. There appears to be a growing impression that some of the audio-visual and programed learning materials are not being fully used in the public school classrooms and should therefore be more readily released to teachers in non-public target schools.

Library Skills Test. In March, 1967, shortly after most of the new resource centers had been opened, a locally constructed Library Skills Test was given to pupils in selected fourth- and sixth-grade classes of project schools. The testing was repeated in June with the same classes, and scores for pupils completing both testings were compared for changes.

The extensive testing required for other aspects of Title I project and program evaluation made it necessary to limit somewhat the administration of the Library Skills Test. In all, 315 fourth-graders and 268 sixth-graders took the March pre-test. Of this group, 262 fourth-graders and 232 sixth-graders were tested again in June.

Separate versions of the instrument were constructed for the fourth and sixth grades. The fourth-grade test contained 42 items; the sixth-grade, 56 items. The content of both versions was essentially the same, focusing on pupils' general knowledge of the format and classification of books and on their understanding of how to use the card catalog and other library materials.

The schools included in the testing were considered representative of three categories of project schools: those that had libraries prior to the Education Act, those whose resource centers had recently been constructed, and those for whom resource centers had not yet been furnished. Classes in each school were selected so as to provide, as nearly as possible, an even distribution of pupils with and without significant Education Act services.

It happened, however, that eliminating those pupils for whom both pre and post test results were not available, made the N's in several of the groups very small. Therefore, the groups representing both old and new resource centers were combined. On the other hand, high and low service groups and primary and secondary target groups were kept separate. It was felt that differences might exist in the extent to which pupils used the services of the centers.

The mean scores earned by fourth- and sixth-grade pupils on the pre- and post-test are reported for each group in Table 17. These data reveal a tendency for secondary target pupils to score higher than their primary target counterparts and for low service pupils to score higher than those receiving greater services.

Table 17. Mean Scores on the Pre- and Post-Administration of the Library Skills Test.

	EXPERIMENTAL GROUP				CONTROL GROUP			
	N	Pre-Test Mean	Post-Test Mean	Mean Gain	N	Pre-Test Mean	Post-Test Mean	Mean Gain
Fourth Grade								
Primary Target								
High Service	48	24.38	26.04	1.66	22	18.91	19.86	.95
Low Service	55	22.40	24.02	1.62	25	21.00	21.64	.64
Secondary Target								
High Service	45	19.07	21.13	2.06	--	---	---	---
Low Service	42	20.98	22.50	1.52	25	25.84	26.40	.56
Sixth Grade								
Primary Target								
High Service	--	---	---	---	27	24.67	26.66	1.99
Low Service	23	28.79	31.96	3.17	25	24.52	27.60	3.08
Secondary Target								
High Service	50	27.25	29.48	2.23	--	---	---	---
Low Service	42	30.52	30.60	.08	33	37.97	37.91	.06

In every case except one, a comparison of the pre-test means with the post-test means shows an increase. These increases range from .08 to 3.17 (for the sixth-grade primary target low-service experimental group). The one decrease, (.06) was in the sixth-grade secondary target control group. Within each group, the increases in the means are greater for the experimental pupils than for the control with the single exception of sixth-grade primary target high service pupils.

Analysis of co-variance, however, indicated that the greater growth made by experimental pupils as compared to controls was not significant. This analysis adjusts the scores for differences that existed in the initial testing.

Several limitations of this study must be recognized. First, the pupils included were not randomly selected but rather chosen as members of a class unit, with an attempt made to balance high and low service children. In addition, the sample of the schools is also small, 9 of 27 schools having centers, and the sample of students proportionally smaller. Because of these sampling conditions, there is little guarantee that these pupils were representative of the total fourth and sixth grade membership, even in the schools chosen for the study.

But the greatest limitation of the study would seem to be the very limited amount of time between the pre- and post-test administration. Within the 1966-67 school year there was no alternative to this calendar. Many of the centers began operation only after mid-year.

In addition to looking optimistically for any evidence of positive effects of the centers, the 1966-67 testing was aimed at developing a suitable instrument for measuring library skills at the local level. Librarians and supervisory personnel have felt that national tests in this field have little content validity in terms of the goals set for the resource centers. Therefore, on the basis of item analysis, the library skills test is being revised for use in the 1967-68 evaluation. Study of the test showed a rather high degree of reliability, so that with some refinement of weak items, the test should prove to be a valuable means of assessing the effects of the resource centers on the library skills of pupils.

Conclusions

Functional Objectives. Even though the evaluation of the project's success in achieving the functional objectives was somewhat limited by lack of appropriate data, a number of conclusions can be drawn.

1. Although teachers in target schools rated the self-image of pupils lower than non-target teachers, no significant difference was found in the actual measurement of self-image in pupil groups.

2. Primary target teacher ratings of pupil aspiration level showed no change from 1965-66 to 1966-67. Secondary target and control ratings on this item increased appreciably.

3. In general, target school teacher judgments of classroom performance as reflected in the Teacher Survey and school marks suggested some decline. Only in the reading marks of second and fourth grade pupils was there even a faint suggestion of improvement among pupils receiving Education Act services.

4. Teacher Survey results provided no clear evidence of improvement in the emotional-social stability of target school pupils and parents.

Instructional and Service Activities. The examination of achievement test data for the pupil sample according to intensity of service and specific area of instructional activity yields the following conclusions:

1. No significant difference was found in the comparison of the high intensity service group with the primary target low service group used as controls. This is true of all grades and all subtests where data were collected.

2. When pupils receiving remedial instruction in specific areas were separated from the rest of the high intensity group, their mean achievement test scores were generally comparable to those of the larger group and thus also to control group scores.

Components. Three components of the project were considered separately in this report. Their evaluation leads to the following conclusions:

1. The Saturday enrichment classes were seen as very worthwhile by both teachers and pupils. Resource persons and enrichment excursions were judged to be especially valuable.

2. The Summer School Learning Camp was appreciated by pupil participants and judged very beneficial as an enriching and recreational experience. Comparison of achievement gains made from May to October by summer and non-summer participants indicated no clearly positive effect on pupils' achievement as a result of the summer program.

3. Evaluation of the resource centers was hampered by the fact that many of the centers were in operation for only a brief part of the 1966-67 school year. Results of the Library Skills Test showed no significant gains over a three-month period for pupils using the resource centers. The circulation figures reported by the librarians were promising.

Recommendations

The following recommendations are made for future project planning and operation:

1. There must be continued concentration on providing services to the same target children that have been the recipients of Title I services to date. Pupils who have participated in the Early Childhood Education offerings should be followed into the elementary grades and given necessary remedial instruction. Only through continuing services to these same selected children can there be hope for eventually showing significant gains in pupil achievement. This ongoing focus is also most consistent with Title I spirit and policy.

2. To enhance further the likelihood of producing measurable gains in achievement, project personnel must be willing to experiment with new techniques and instructional approaches. Personnel charged with responsibility for administering and supervising the project should foster a spirit of innovation, so that undue adherence to traditional concepts will not be allowed to stand in the way of educational excellence.

3. Continued attention should be given to pupil improvement in affective as well as cognitive characteristics. Qualities such as self-image, aspiration level and personal stability, which comprised three of the five functional objectives identified by project personnel, are believed highly important. In the effort to reverse the consistent lack of significant achievement gains these basic personal qualities must not be overlooked.

4. Fundamental to the improvement of such traits, is the highest possible degree of parental involvement. To date, there is no evidence to suggest that parent relationships have been neglected since the incorporation of this area of activity into the elementary project at the start of the 1966-67 school year. It may be necessary, however, to provide a fresh impetus to these activities to insure that they are given proper attention.

5. Similarly, the in-service training of target school staff members, including those not salaried under Title I, must not be overlooked. With the discontinuance of the special Staff Development project, in-service training responsibilities have become an important part of the task of project administrators and supervisors.

6. The value of the Saturday Enrichment program recognized by both pupils and teachers warrants continuation of this project component. These classes have now been in existence long enough for the staff to have developed an effective structure and to have gained adequate experience with this kind of program. More direct evaluation of the effects of these classes on pertinent pupil characteristics seems in order for the coming year.

7. Despite the apparent lack of project funds for the summer of 1968, it seems highly desirable to provide some form of summer service to target pupils. The high degree of pupil acceptance of the innovative 1967 learning camp suggests that future programs be designed along similar lines. If such a program is offered, evaluation will be aimed at assessing the effects of participation on personal characteristics such as self-image and attitude toward school.

8. In view of the magnitude of the resource centers component of the project, much effort seems warranted to insure optimal use of the books and materials provided. Some attention should be given to the expression of dissatisfaction on the part of non-public school personnel with the availability of resource center materials.

Summary

The Elementary Remediation and Enrichment project, the most extensive Title I effort to improve the education of Cincinnati's disadvantaged children, began in February, 1966, and continued with an even larger scope through the 1966-67 school year. Through a variety of enrichment activities, remedial instruction in fundamental areas, parent involvement, provision of learning resource centers, and a summer learning camp program, the project sought to serve those pupils whose disadvantaged backgrounds have hindered their progress in school. Of the various personnel added to target school staffs, remedial reading and resource teachers were seen as providing the most basic kind of service, especially in their work with those pupils handicapped in reading and arithmetic.

Evaluation of the project in the light of its functional objectives, such as improving self-image and classroom performance, yielded few positive results. Occasional small differences were noted favoring project pupils, e.g., classroom marks in reading.

Similarly, findings from the evaluation of special instructional activities generally showed no significant difference. Achievement data comparisons showed only one area of instruction that seemed to produce positive results. Remedial Language Arts instruction seemed to have raised achievement in spelling and language.

Although significant differences were not found even in the separate evaluation of three project components, assessment of pupil and teacher reaction produced strongly favorable results. Both Saturday enrichment classes and the Summer School Learning Camp were judged very worthwhile. The resource centers, now in operation in all target schools, cannot yet be fairly appraised, but their potential value seems to justify thorough future evaluation of both process and product.

Eight recommendations have been made in this report. Of these, the most critical is that concentrated attention be continuously given to the same children that the project has served thus far.

Table 18 is a summary of the major findings in this project evaluation.

Postscript

If this project is having a desirable impact on target pupils, as reflected by pupil and project staff judgments, then we must either accept these judgments as intrinsic signs of success or discover new and refined ways of detecting differences where they exist. Perhaps we are looking for change in the wrong places. Perhaps our instruments for measurement are too crude. Perhaps our evaluative techniques are inappropriate. And perhaps no changes are occurring in target pupils. We simply don't know.

The two projects reported in this journal will be given careful scrutiny and will probably be modified in 1968-69.

Table 18. Summary of Project Findings by Objective, Activity, and Component.

Objective	Finding	Reference
1. Improved Self-Image	No significant difference among high and low service primary target and no service control and suburban groups.	pp. 67-70
2. Improved Aspiration	No consistent pattern in inter-group comparisons of survey results and attendance data.	pp. 70-72
3. Improved Reading	Suggestion of improvement in Reading marks of second- and fourth-grade pupils in high service sample.	pp. 72-73
4. Improved Stability	Teacher survey results inconclusive.	pp. 74-75
5. Improved Classwork	Suggestion of poorer performance in Language, English, and Arithmetic marks of high service pupils.	pp. 75-76
Activity		
1. English Language Arts	Larger Spelling and Language achievement gains for pupils with the remedial service than for rest of high service sample.	pp. 78-79
2. Remedial Reading	No significant difference in Word Meaning and Paragraph Meaning achievement gains of these sample pupils vs. those of comparison groups.	pp. 79-80
3. Remedial Arithmetic	No significant difference in Arithmetic Computation and Concepts achievement gains of these sample pupils vs. those of comparison groups.	pp. 81-82
Component		
1. Saturday Enrichment	Teacher and pupil testimony that program has considerable enrichment value.	pp. 82-87
2. Summer Program	No significant achievement gains, but strongly positive reaction.	pp. 87-92
3. Resource Centers	No significant gain in library skills over three month period for pupils using centers.	pp. 92-97